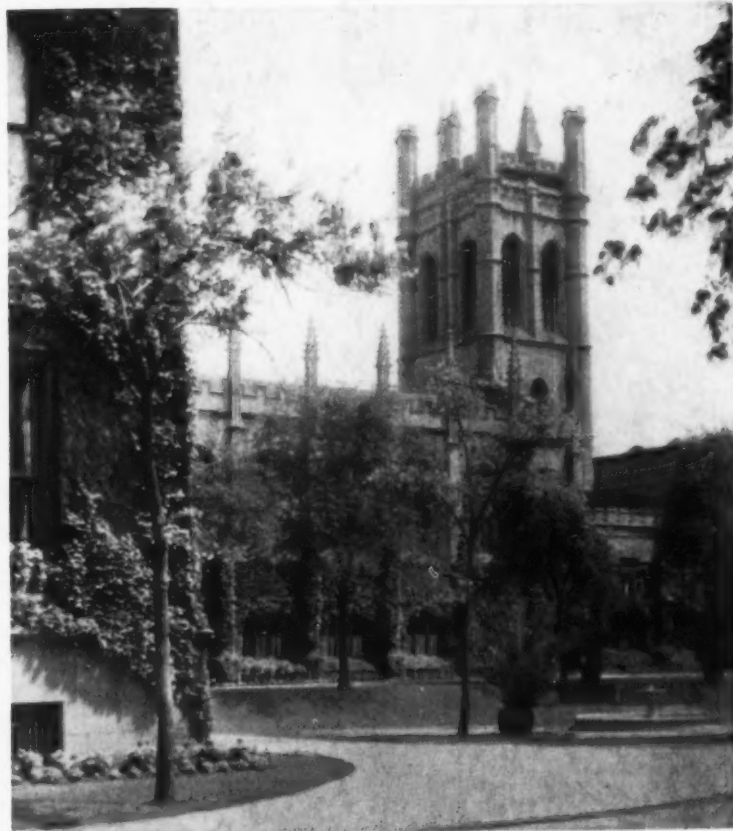


The NATION'S SCHOOLS

DEVOTED TO THE APPLICATION OF
RESEARCH TO THE BUILDING, EQUIPMENT
AND ADMINISTRATION OF SCHOOLS

VOL. VI
No. 6

DECEMBER
1930

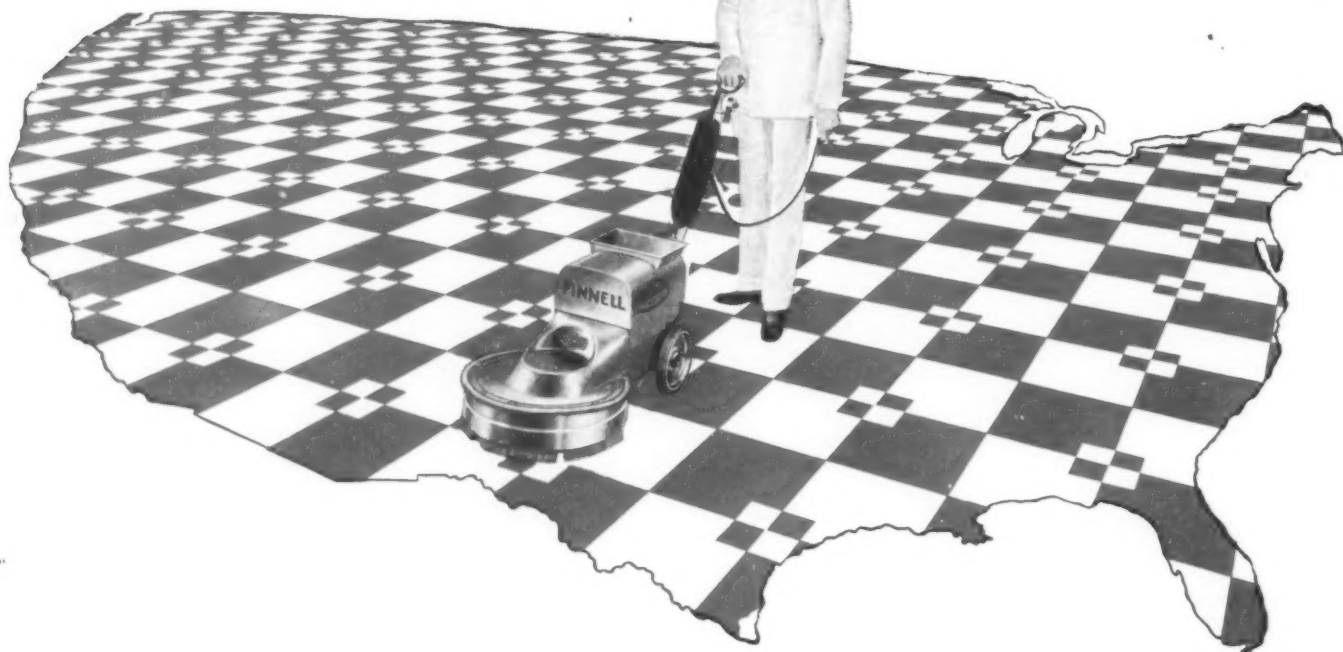


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Covers the Country

MORE than one hundred active, trained representatives, operating out of over sixty principal cities of the United States, render service to users of FINNELL Floor Machines.

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IF YOU have just built a new school, secure the benefit of this consultative service before the building is opened for use. Find out what is best to beautify and to preserve the new floors. A right start will go a long way toward keeping them always beautiful and new looking.

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We shall be glad to send you complete information on the various units. Just tell us approximately the size of your School System, its floor area and kind of floor. Or, an accurate survey by a competent FINNELL floor maintenance specialist will cost you nothing and obligate you in no way. Address FINNELL SYSTEM, INC., 1512 East Street, Elkhart, Ind. Factories: Elkhart, Indiana, and Hannibal, Missouri.



Use a FINNELL in your home, too!
This is the FINNELL for home use. Light, compact, speedy, amazingly efficient, and priced within reach of any purse. Waxes, polishes, finishes, scrubs—wet or dry.



The new FINNELL Combination

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A Size for Every Purpose

The FINNELL scrubs and polishes—electrically, exerting from 35 to 60 pounds pressure on the brushes (depending upon the size of the machine.) Clean water is provided for every square inch of floor space and the brushes dig down beneath surface dirt until every particle is routed, even from between the cracks and crevices.

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Est. 1906

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IT WAXES - IT POLISHES - IT FINISHES - IT SCRUBS

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Resilient Floor Tile

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POSITIVELY—no modern floor could be more practical, serviceable, or economical than Tile-Text Resilient Floor Tile.

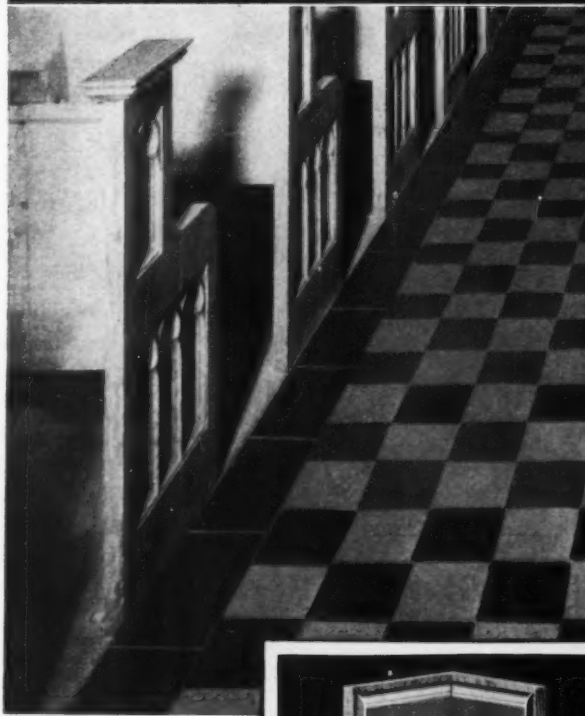
It's silent, sanitary, foot-easy, and lasting—requires no upkeep or conditioning—easy to keep clean—resistant to wear, fire, and dampness—warranted not to crack, loosen, or disintegrate . . . and all this at a cost within the price range of ordinary floor coverings.

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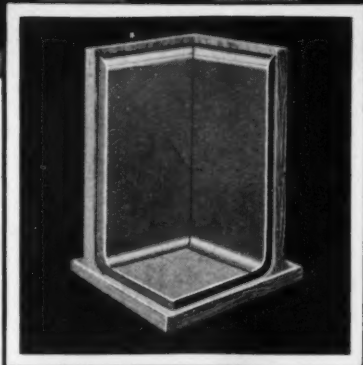
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CHICAGO HEIGHTS ILLINOIS



Tile-Text Cove Base
— a sanitary, ready-to-set, pre-formed base that adds the finishing touch to any resilient floor.



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FREE ADVISORY SERVICE

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In older buildings, the same service is available to determine what process is best adapted to restore the freshness, cleanness and beauty of floors, and the best method of keeping them up.

FINNELL machines are incidental to this service, but, of course, any method of caring for floors is aided with a FINNELL. True economy may indicate a complete FINNELL System,—large scrubbers or combination scrubber and water absorber for open and extensive areas, smaller scrubber polishers for the enclosed and crowded spaces. Whatever you need for best results and the greatest time and labor saving, FINNELL representatives can recommend it and demonstrate it.

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This is the FINNELL for home use. Light, compact, speedy, amazingly efficient, and priced within reach of any purse. Waxes, polishes, finishes, scrubs—wet or dry.

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IT WAXES - IT POLISHES - IT FINISHES - IT SCRUBS

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Resilient Floor Tile

—all that a GOOD Floor should be

POSITIVELY—no modern floor could be more practical, serviceable, or economical than Tile-TEX Resilient Floor Tile.

It's silent, sanitary, foot-easy, and lasting—requires no upkeep or conditioning—easy to keep clean—resistant to wear, fire, and dampness—warranted not to crack, loosen, or disintegrate . . . and all this at a cost within the price range of ordinary floor coverings.

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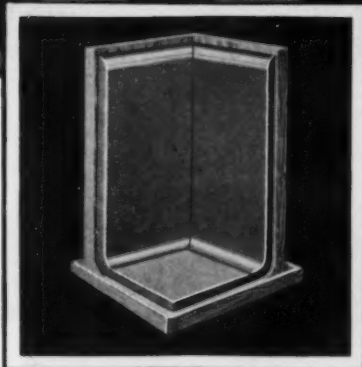
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Tile-TEX Cove Base
—a sanitary, ready-to-set, pre-formed base that adds the finishing touch to any resilient floor.



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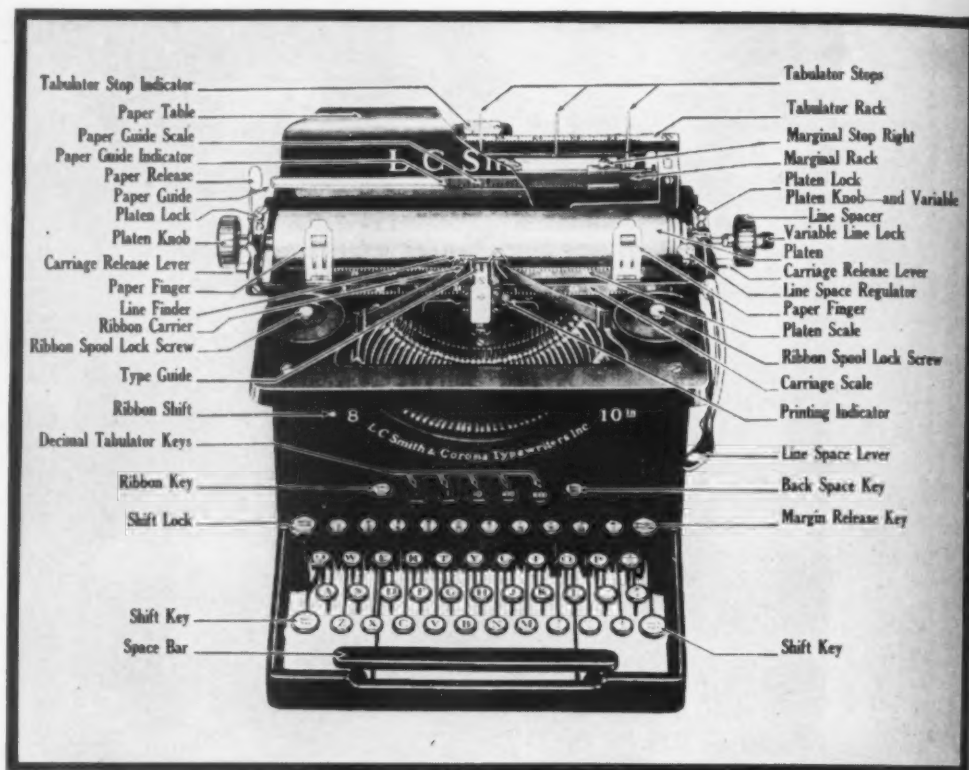
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Published on the fifteenth of each month by
THE NATION'S SCHOOLS PUBLISHING CO.

Member Audit Bureau of Circulations

President, OTHO F. BALL Secretary, STANLEY R. CLAGUE Treasurer, J. G. JARRETT

919 NORTH MICHIGAN, CHICAGO—Telephone, Superior 6402

NEW YORK OFFICE—11 West 42nd Street. Telephone, Longacre 6591

SUBSCRIPTION RATES—Domestic, \$2.00. Canada and Foreign, \$2.50. Single copies (current), 25c. Back copies, 50c. Domestic rates include United States and possessions.

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Visual Instruction at its BEST!

The SWING-WING

Blackboard

DISPLAYOR

with Genuine BANGOR Slate!

▲ Eighty-four square feet of Blackboard space within the reach of Teacher's pointer! The Swing-Wing Blackboard Displayor, built like a giant eight-page book, multiplies Blackboard space . . . reduces eye-strain . . . enables the instructor to preserve written material indefinitely!

The Wings open at wide angles, permitting clear vision from any point within the classroom. The Swing-Wing Blackboard Displayor may be quickly attached to any wall, post or partition. Ruggedly built . . . handsomely finished . . . moderately priced—a real aid to educators!

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Write to-day for Catalog S12 containing detailed information and new low prices now in effect.



Declaration of Independence
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Constitution of the United States
We, the people of the United States, do hereby establish this Constitution.

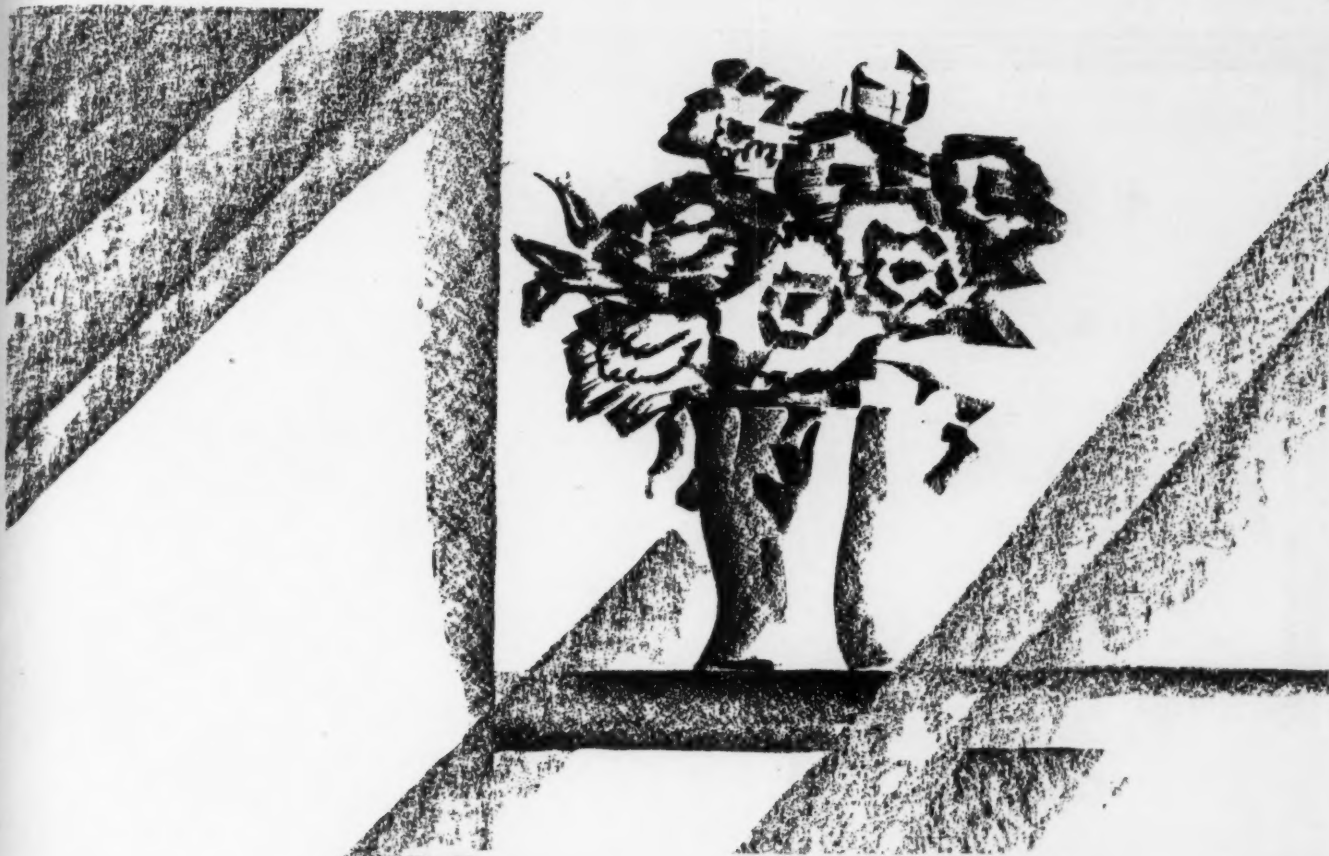
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You can't keep dust out of a school . . .

It is tracked in—comes in through windows and is produced in volumes by blackboards and other normal school activities.

But you can remove dirt and dust soon as it arrives.

The Spencer System

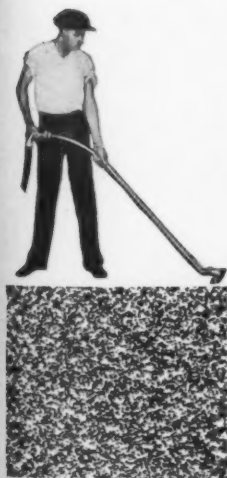
cleans the main avenues of travel quietly and quickly during the opening exercises.

The biggest cause of dust is thus removed at its source. Rooms are cleaned while vacant or between periods if necessary and the whole school is given a perfect cleaning every day without heavy labor costs.

The Spencer System is not only the most economical method of cleaning; it is the only method that will clean thoroughly according to tests made by experts in school cleaning and maintenance.

Let us send you the Bulletin and a list of Spencer Equipped Schools.

The Spencer Turbine Company, Hartford, Conn.



SPENCER CENTRAL CLEANING SYSTEM

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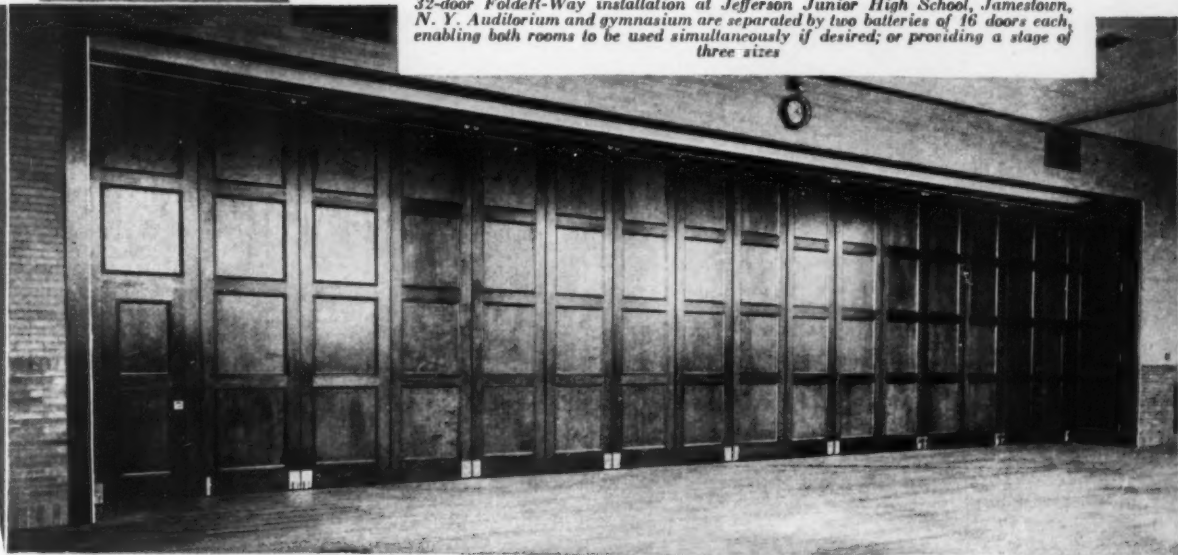
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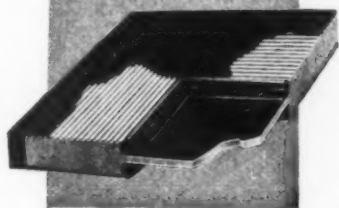
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32-door FoldeR-Way installation at Jefferson Junior High School, Jamestown, N. Y. Auditorium and gymnasium are separated by two batteries of 16 doors each, enabling both rooms to be used simultaneously if desired; or providing a stage of three sizes



FoldeR-Way doors are Standard Equipment for Schools



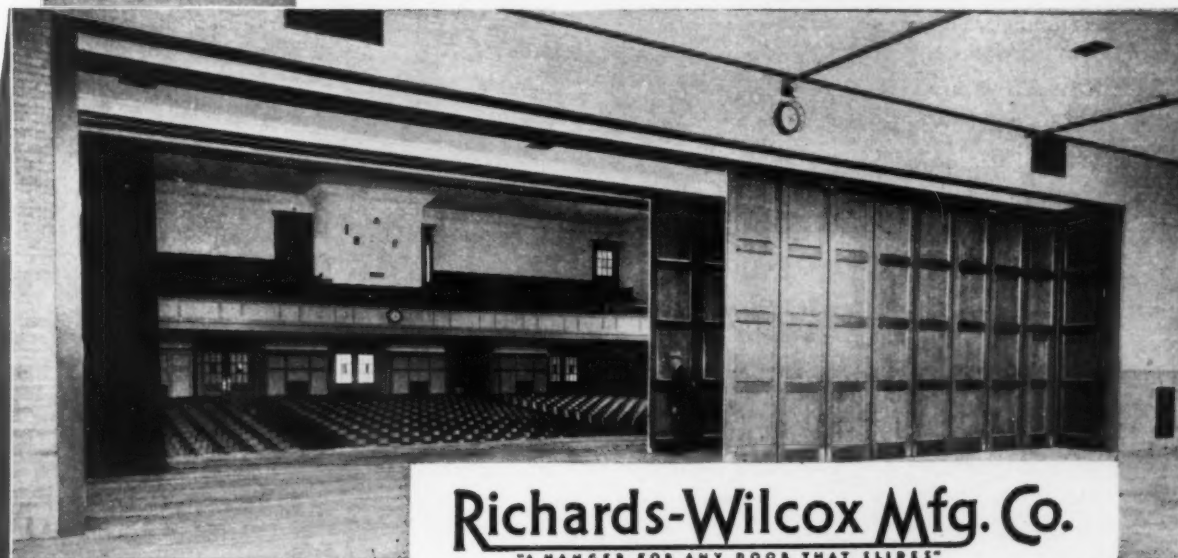
The beauty and smooth operation of R-W Compound Key Veneered doors are lasting. Sagging, warping, swelling, shrinking are practically eliminated by tongue and groove method of applying veneer. These famous doors are now made exclusively and sold only by R-W for FoldeR-Way partitions

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R-W school equipment includes school wardrobes of every size and design; hardware for every door that slides; and R-W Compound Key Veneered Doors, specially manufactured for FoldeR-Way installations.

Consult an R-W engineer about any doorway problem. Send today for illustrated Catalog No. 43.

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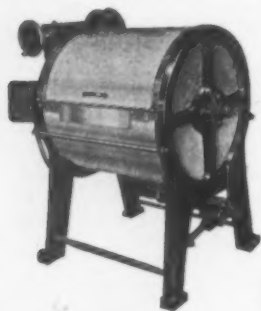


Richards-Wilcox Mfg. Co.

"A HANGER FOR ANY DOOR THAT SLIDES"
AURORA, ILLINOIS, U.S.A.

Branches: New York Chicago Boston Philadelphia Cleveland Cincinnati
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Los Angeles San Francisco Omaha Seattle Detroit Atlanta
Richards-Wilcox Canadian Co., Ltd., London, Ont. Montreal Winnipeg

They bring big-school *Laundry Advantages* to the small school



*The 25x36"
American
RAYTEX
Washer*

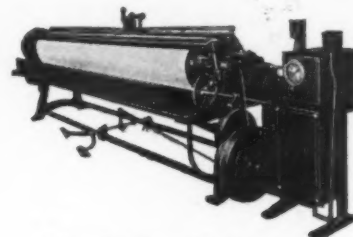
FOUR finely-engineered, "all-American" machines. Substantially constructed, economical to operate, easy to own. A complete unit that will bring your washing and ironing under your own direct supervision and enable you to operate with a smaller supply of linens. Write—our school-laundry specialist will bring you all the facts.



*The 17" American
MONEX Extractor*



*The 36x30" American
DRYTEX Tumbler*



*The American Electric Steam
Flat Work Ironer*



THE AMERICAN LAUNDRY MACHINERY COMPANY

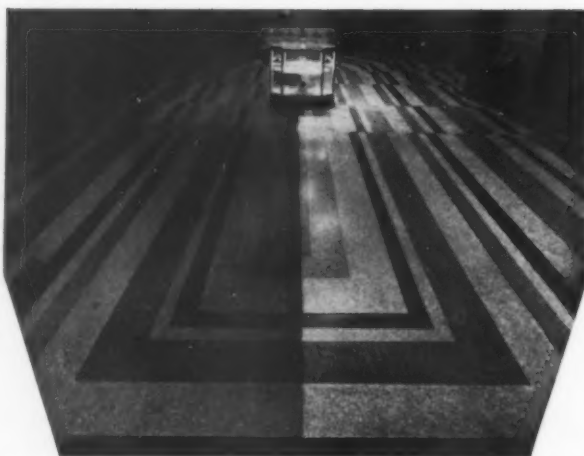
Norwood Station, Cincinnati, Ohio

The Canadian Laundry Machinery Co., Ltd.
47-93 Sterling Road, Toronto 3, Ont., Canada

Agents: British-American Laundry Machinery Co., Ltd.
Underhill St., Camden Town, London, N. W. 1, England

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A new, easily applied liquid that produces a waterproof, trackless finish, which dries hard and is impervious to dirt. ONEX-SEAL is uncrystalline, permanent and will not flake off. It withstands varying weather temperatures.



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A Proven Seal for Tile, Marble, Terrazzo and Slate

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Shine-All Sales Company

distributors for

THE HILLYARD CHEMICAL COMPANY

St. Joseph, Missouri, U. S. A.



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Institute, Auburn, Ala.

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For data see our pages in "Sweets"



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Pipe carries the
acid wastes

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* Warren, Knight & Davis,
Architects
E. M. Williams,
Sanitary Engineer

A Product of: THE DURIRON COMPANY, Inc., Dayton, Ohio
Sales Offices in 36 Principal Cities.

Libby announces

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- No. 10 Size:** A large can of Libby's Hawaiian Sliced Pineapple, labeled "NET WEIGHT 6 LBS. 10 OZ." with a callout "No. 10 Size".
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- No. 2 Tall:** A can of Libby's Hawaiian Crushed Pineapple, labeled "NET WEIGHT 1 LB. 4 OZ." with a callout "No. 2 Tall".
- No. 1 Tall:** A can of Libby's Hawaiian Sliced Pineapple, labeled "NET WEIGHT 14 OZ." with a callout "No. 1 Tall".
- No. 1 Flat:** A can of Libby's Hawaiian Sliced Pineapple, labeled "NET WEIGHT 9 OZ." with a callout "No. 1 Flat".
- 8 oz. Size:** A small can of Libby's Hawaiian Crushed Pineapple, labeled "NET WEIGHT 8 OZ." with a callout "8 oz. Size".

6 different sizes for your particular needs

SIZE CAN	SLICED	TIDBITS	CRUSHED
No. 10	6 lb. 10 oz. 29 #2½ slices, or 40 #2 slices, or 50 #2 thinner slices	6 lb. 10 oz.	6 lb. 10 oz.
No. 2½ tall	1 lb. 14 oz. 8 slices	1 lb. 14 oz.	1 lb. 14 oz.
No. 2 tall	1 lb. 4 oz. 8 slices	1 lb. 4 oz.	1 lb. 4 oz.
No. 1 tall	14 oz. 8 slices	14 oz.	14 oz.
No. 1 flat	9 oz. 4 slices	9 oz.	9 oz.
8 oz.		8 oz.	8 oz.

this marvelous new crop of pineapple

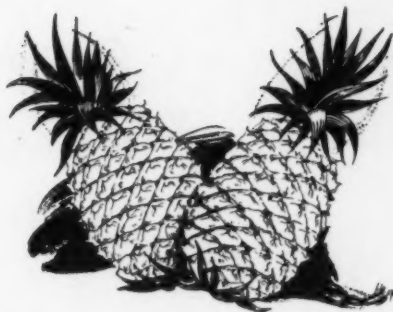
WE believe this is the finest pineapple ever grown—the new 1930 crop from Libby's own great Hawaiian plantations!

It's the talk of the islands—a new pineapple perfection!

And every can of it, in every one of three popular styles—Sliced, Crushed, Tidbits—is absolutely uniform in both measure and quality.

Such reliability enables you to plan your menus with accurate, unvarying cost figures for every pineapple serving.

You can give your students or pupils their vitamins and essential minerals in the most appetizing way possible—with Libby's Pineapple. Plan to serve it often,



not only for its economy but for its healthful qualities as well.

For it's the perfect ingredient of so many dishes—cakes, salads, fruit cocktails, puddings and ice creams.

Served alone in its own rich juice, or with meats—indeed in any style, Libby's Pineapple will be a genuine treat and a tasty, healthful one, the year around!

You'll find here actually finer fruit with a new, spicy tang and a new, luscious sweetness—literally full of those health-building qualities that growing children need.

It's put up in six convenient sizes, giving you the greatest choice for your particular uses.

Order Libby's from your usual source of supply and take advantage of the season's value in this world-famous Pineapple.

Also, be sure to send for *The Story of Hawaiian Pineapple*, a free booklet that tells a great deal more you'll want to know about the "King of Fruits". Just clip the coupon and send it to

Libby, McNeill & Libby—Chicago



Libby's Hawaiian Pineapple

Served plain, just as it comes from the can in its own tasty juice—or in any one of a hundred different ways—Libby's Pineapple is a genuine treat and a healthful one

Mail this coupon NOW
for the interesting FREE
booklet, *The Story of
Hawaiian
Pineapple*



Address: Libby, McNeill & Libby
Dept. NS-1, Welfare Bldg., Chicago

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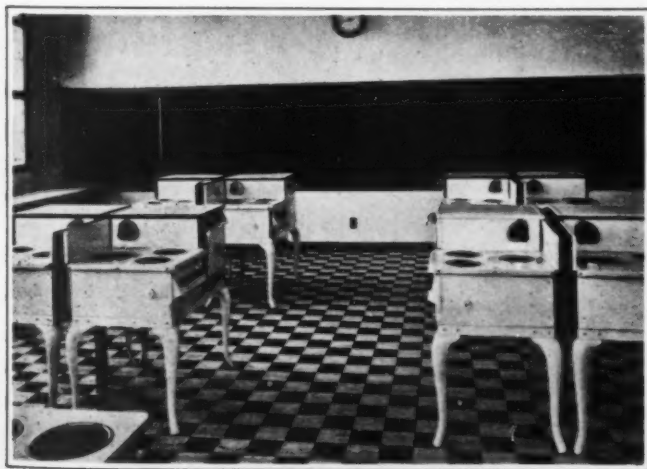
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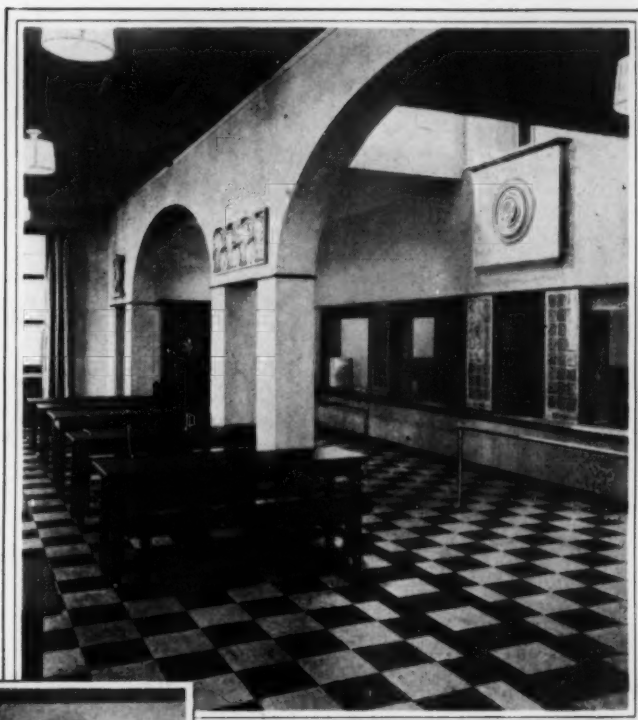
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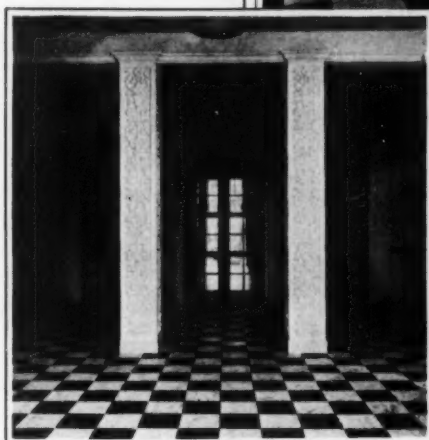
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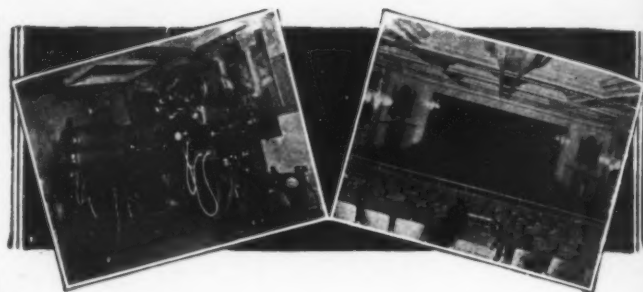
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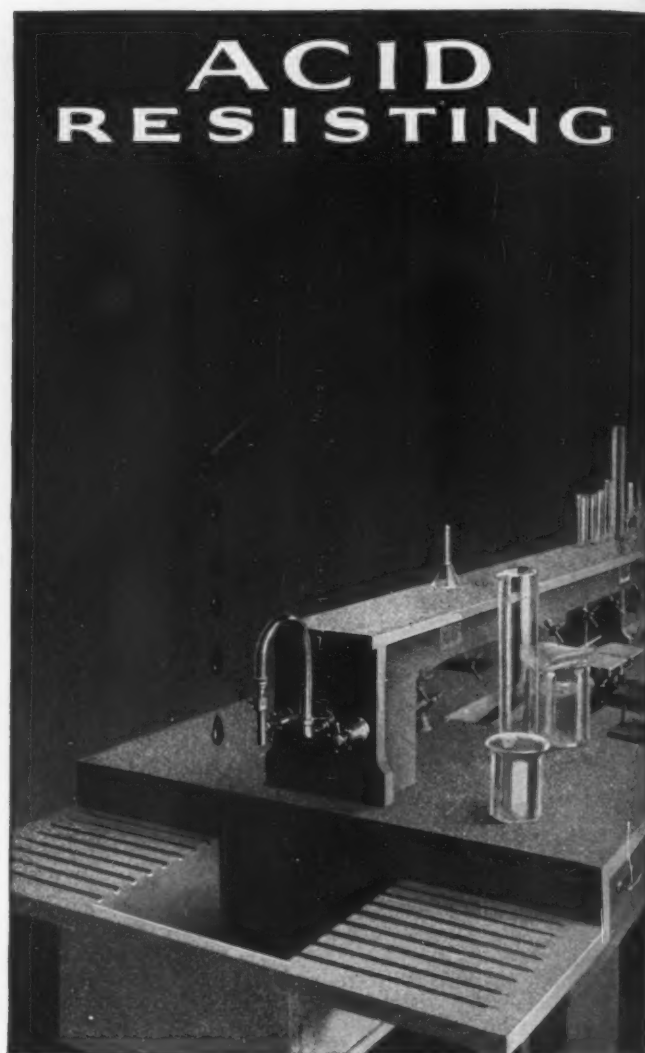
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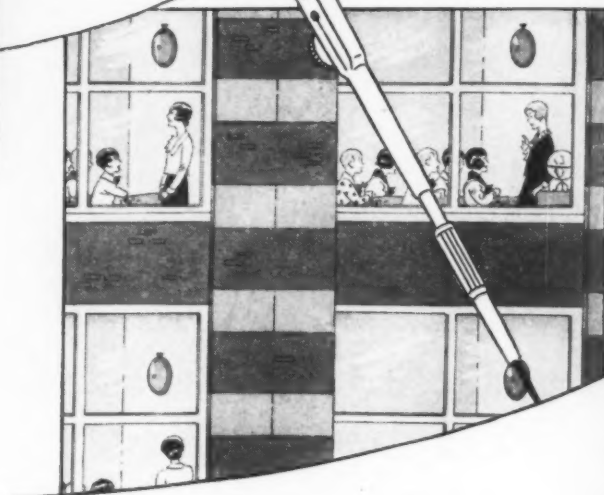
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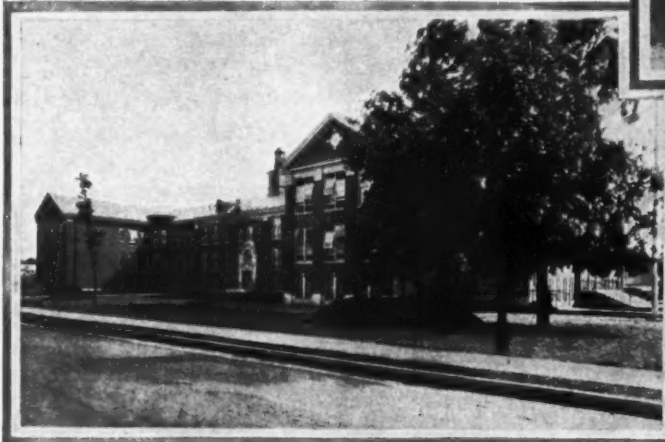
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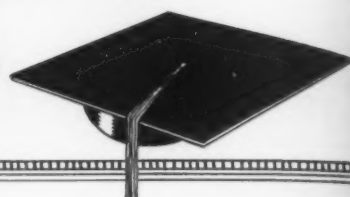
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VOLUME VI

DECEMBER, 1930

NUMBER 6

Analyzing the Ingredients of Teachers' Marks

A study showing the discrepancies between scores made on standardized tests and those given by teachers, illustrated by charts that reveal significant facts on pupil grading

BY W. HARDIN HUGHES, DIRECTOR OF ADMINISTRATIVE INVESTIGATION AND RESEARCH, PASADENA CITY SCHOOLS,
PASADENA, CALIF.

MANY and varied are the ingredients of school marks. It is generally understood that a certain amount of scholastic achievement is represented in a given mark, but how much no one really knows. One teacher may have put large quantities of "industry" into the requirements for this mark; another, "respect for authority"; another, "cooperation"; while still others may have combined these and many more. It is certainly true that school marks are too indefinite. In general practice they may stand for personal characteristics or for a combination of personal characteristics and informational achievement.

Assigning marks to pupils is an important matter. It involves, in fact, the question of right and wrong, for pupils receive promotion, recommendation and honor on the basis of teachers' marks. An important responsibility of the school, therefore, is to know its pupils. It is the business of the school to recommend its pupils for what they really are and for what they can actually do. A deceptive record that puts some in places where they should not be and keeps others from being recommended to the places where they belong is not only harmful but is undemocratic.

Six years ago I carried on an intensive piece of research to ascertain if possible the ingredients of school marks. The findings at that time established rather conclusively the fact that marks are exceedingly deceptive.

Chart 1 shows some of the differences between honor students and nonhonor students of superior intelligence in the eighth grade of a junior high school. The data used in this study were teachers' marks, intelligence quotients as derived from the Terman Group Tests of Mental Ability, achievement quotients as determined by the Stanford Achievement Tests and pooled ratings secured with maximum care through the use of a scale¹ for measuring capacities, attitudes and interests of pupils.

How Pupils Qualify for "Honor"

In examining the chart, we should first note the marked superiority of the honor student over the average student in the possession of certain desirable traits. If it is an honor to possess in high degree such traits as persistency, a sense of accuracy, respect for authority, cooperativeness and forcefulness of personality, then the honor student is indeed worthy of honor. But what shall we say about the nonhonor student of superior intelligence? It will be noted that of traits more or less social in nature he possesses practically an average for his group. In traits that are primarily intellectual he greatly surpasses the average for the entire group and when measured by standardized intelligence tests he is found to be ten points above the average honor student.

¹ Hughes, W. Hardin, A Scale for Capacities, Attitudes and Interests, Jour. of Ed. Method, October, 1923.

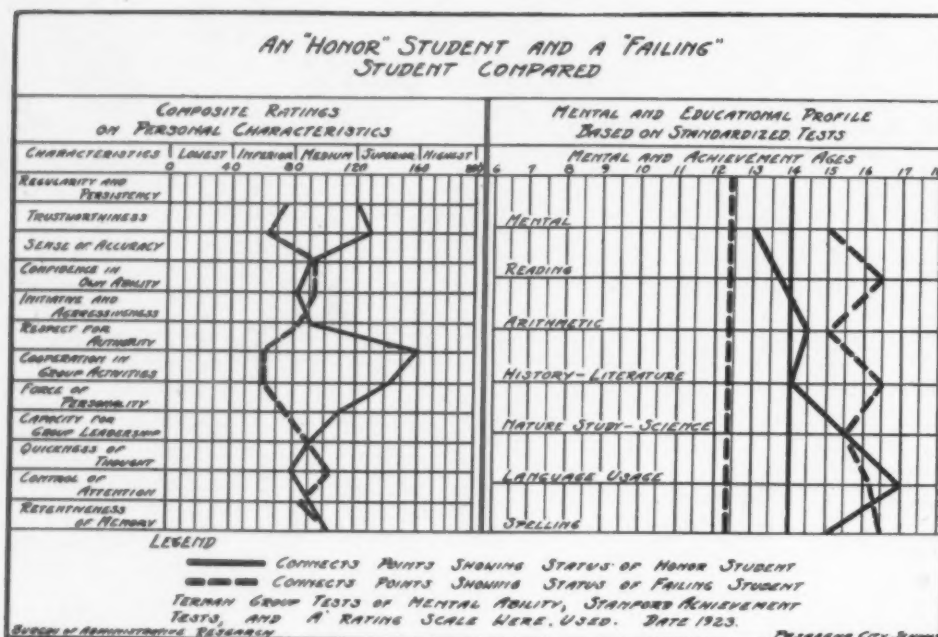


Chart 2. In this graphic comparison of the records of an honor and a failing student, it will be seen that although the failing student was nearly two years younger than the honor student, his mental and achievement ages, except in language usage, were considerably higher.

It is significant in the report that the nonhonor student of superior intelligence stands higher than the honor student on every standardized test of scholastic achievement. We are likely at first thought to wonder what is wrong with a marking system by which pupils of less than maximum

achievement get enough high marks to qualify for "honor," while just as many more pupils of maximum achievement do not get the marks and cannot therefore qualify. Many of these pupils of superior intelligence explain the situation by saying that teachers are prejudiced against them. They are wise enough to know that they are actually accomplishing more in their subjects than many of the honor students.

In Chart 2 may be seen the record of an honor student and a failing student included in this portion of our study. The former had received a sufficient number of 1's and 2's to entitle him to membership in the honor society. The latter had not only failed to qualify for this honor but was actually receiving 4's and 5's and had been reported as failing in at least two of his subjects. It should be noted that the honor student was rated superior in precisely the same qualities in which the failing student received a rating of inferior, namely, regularity and persistency, trustworthiness, respect for authority and cooperation. Although the failing student was nearly two years younger than the honor student his mental and achievement ages, except in language usage, were considerably higher than those of the honor student.

Administering Grades Scientifically

Such discrepancies as these could probably be found in any large school where the marking system has not been scientifically administered. In the junior high school of this study the number of honor students was equal to the number of nonhonor students of superior intelligence. The two cases presented in Chart 2 were of course outstanding.

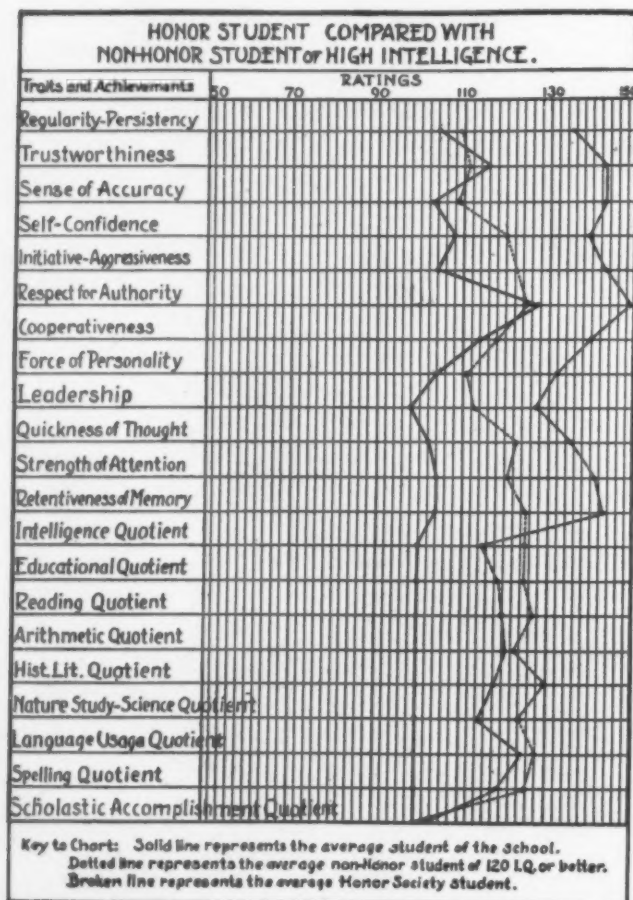


Chart 1.

In a more recent study several types of data were employed. First, there were the semester marks in algebra and geometry given by the classroom teachers. At the time these were reported to the central office it was not known in the schools that an investigation was in progress. Second, the intelligence quotients of these pupils were taken from the cumulative records and were used as an index of learning capacity. Third, scores from standardized tests in algebra and geometry were obtained. These tests, covering only the first semester's work in the respective classes, were administered and scored by the research bureau. Finally there had already been collected in the central office the ratings of pupils on the seven characteristics of our rating scale—industry, accuracy, initiative, reliability, cooperation, leadership, and physical vitality. The accompanying graphic rating scale indicates something of the technique employed in assembling data of the latter type.

In Charts 3, 4 and 5 may be seen the relation of teachers' marks to intelligence quotients and to standardized test scores. It will be noted in Chart 3 that the I. Q.'s of pupils who received semester marks of A ranged all the way from 95 to 135 or higher. The same pupils received geometry scores

DISTRIBUTION OF A'S GIVEN BY GEOMETRY TEACHERS IN RELATION TO INTELLIGENCE QUOTIENTS AND SCORES ON STANDARDIZED GEOMETRY ACHIEVEMENT TEST PASADENA JR. HIGH SCHOOLS END OF 1st SEMESTER 1929-30

Singers Tenor	Soprano/ Bass	Intelligence Quotients										TOTAL
		95-100	100-104	105-110	110-114	115-119	120-124	125-129	130-134	135 or higher		
110 or higher											2	
105-109											7	
100-104											10	
95-99											5	
90-94											7	
85-89											4	
80-84											6	
75-79											4	
70-74											1	
65-69											12	
60-64											1	
55-59											2	
50-54											7	
45-49											3	
40-44											1	
35-39											2	
30-34											1	
Below 30												
TOTAL		2	8	4	18	14	11	7	3	8	75	

Chart 3. Each A in this chart represents one pupil whose intelligence quotient may be read at the top of the column and whose score on the Orleans Plane Geometry Test may be read in the left column. For example, the A in the upper right corner represents a pupil whose I. Q. is 135 or higher and whose geometry score is 110 or better. Quartiles and medians revealed by this chart are I. Q.'s of 111, 116 and 124 and geometry scores of 66, 83 and 100.

DISTRIBUTION OF B'S GIVEN BY GEOMETRY TEACHERS IN RELATION TO INTELLIGENCE QUOTIENTS AND SCORES ON STANDARDIZED GEOMETRY ACHIEVEMENT TEST PASADENA JR. HIGH SCHOOLS END OF 1st SEMESTER 1929-30

Score on Test	INTELLIGENCE QUOTIENTS										TOTAL
75 or less	95	100-99	100-104	105-109	110-114	115-119	120-124	125-129	130-134	135 or more	
110 or more											1
105-109											2
100-104											2
95-99											1
90-94											2
85-89											4
80-84											8
75-79											10
70-74											4
65-69											6
60-64											6
55-59											5
50-54											8
45-49											4
40-44											6
35-39											7
30-34											
Below 30											3
TOTAL	4	4	6	15	13	12	11	3	7	4	79

Chart 4. Each B in this chart represents one pupil whose intelligence quotient may be read at the top of the column and whose score on the Orleans Plane Geometry Test may be read in the left column. Quartiles and medians revealed by this chart are I. Q.'s of 106, 114 and 122 and geometry scores of 49, 65 and 79.

on the standardized test ranging from 30 to 110 or higher. The other two charts present similar relationships among the three factors, I. Q.'s, test scores and teachers' marks.

A number of significant facts are revealed in this part of the investigation. We naturally wonder how pupils receiving the same semester marks can be so far apart both in achievement as measured by objective tests and in capacity for learning as measured by intelligence tests. Why, for example, does one pupil of 135 I. Q. who makes a score of 110 on the objective test receive an A while another receives a B, and still another a C or a D? Why do some pupils of inferior ability in geometry as measured by the objective test receive A while others of superior ability in geometry as measured by the test receive only C and D? If a shotgun had been fired at each of these charts in succession and the holes had been taken as the location of A, B and C students, respectively, the distributions would have been little different.

How Reliability Was Tested

The charts prepared for distribution of teachers' marks in algebra were similar to those for geometry.

As in the earlier study reported above, we have turned to the graphic rating scale to see whether

SCORES ON TEST	Below 75	75-80	80-85	85-90	90-95	95-100	100-105	105-110	110-115	115-120	120-125	125-130	130-135	135-140	TOTAL
140-145															
135-140															
130-135															
125-130															
120-125															
115-120															
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30-35															
25-30															
20-25															
15-20															
10-15															
5-10															
0-5															
TOTAL	3	8	6	14	11	8	9	5	2						66

Chart 5. Each C and D represents one pupil whose intelligence quotient may be read at the top of the column and whose score on the Orleans Plane Geometry Test may be read in the left column. Quartiles and medians revealed by this chart are I. Q.'s of 105, 111 and 120 and geometry scores of 36, 53 and 68.

or not there is any relationship between teachers' marks and the possession of certain personal qualities. In making this comparison we used the following technique. First we selected the A students whose test scores on the objective tests were within the lowest quarter of scores for the entire class. Then we selected the C and D students whose test scores were actually in the highest quarter of the class. The average ratings on the various personal qualities were then arrived at for the A students and C and D students, respectively. Chart 6 is the result.

Many Discrepancies Exist

While these findings do not prove anything conclusively, all of the facts herein revealed point emphatically to the deceptive nature of teachers' marks. It is significant, to say the least, that A students of extraordinarily low achievement as measured by objective tests are extremely high in industry and cooperation, and that C and D students of superior achievement as measured by the same tests are low in industry and cooperation. Other significant relationships may be seen in the chart.

When the ingredients of school marks are varied and indefinite, we need not be surprised to find discrepancies of all sorts in actual practice. We

have seen how the honor society may or may not be composed of students of superior scholarship. In fact, some of our high school honor students have almost failed in their subsequent college and university work. Many follow-up studies have shown how similar is the academic achievement of recommended and nonrecommended pupils. This is true whether the comparison is based upon college marks or upon scores obtained in objective tests.

Recommended and Nonrecommended Pupils

In Chart 7 may be seen the comparative standing of recommended and nonrecommended pupils in the thirteenth year of the Pasadena Junior College, Pasadena, Calif. It will be noted that the range of scores is practically the same for recommended and nonrecommended. While the median scores are higher for the former than for the latter, a considerable number of nonrecommended are as superior as the upper half of the recommended and therefore are superior to the lower half of the recommended group.

We should keep in mind while making this comparison that the objective tests employed in the study covered the high school content in two of

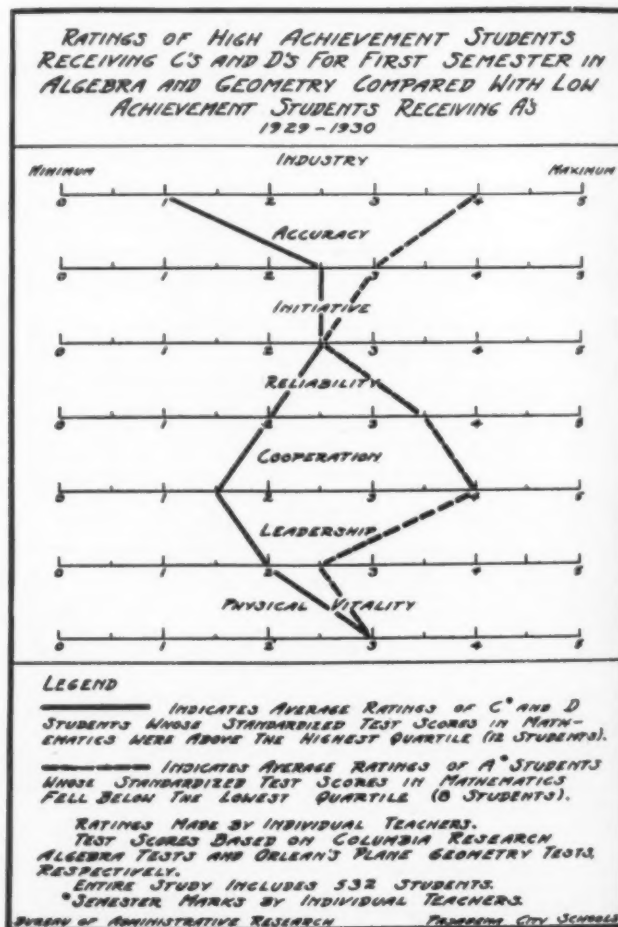


Chart 6.

the major subjects, namely, English and history and social science. Furthermore, we should understand that the teachers' marks over the high school period were the factors that determined whether or not pupils were to be recommended. Even before college work was actually attempted by these pupils the differences between the two groups were, primarily, not scholastic in nature. Similar facts were revealed when a comparison was made between recommended and nonrecommended groups and the comparison included the subjects of science and mathematics.

Factors Determining Marks

In this brief report we have attempted to show in graphic fashion the indefiniteness and unreliability of teachers' marks. The discrepancies between scores made on standardized tests and marks given by teachers were conspicuously prominent. The fact that high marks for achievement in a given subject and superior ratings on certain personal characteristics were accompaniments of each other was pointed out. The agreement of findings in two independent investigations, carried on more than six years apart, was significant. In both studies it was found that extraordinarily high

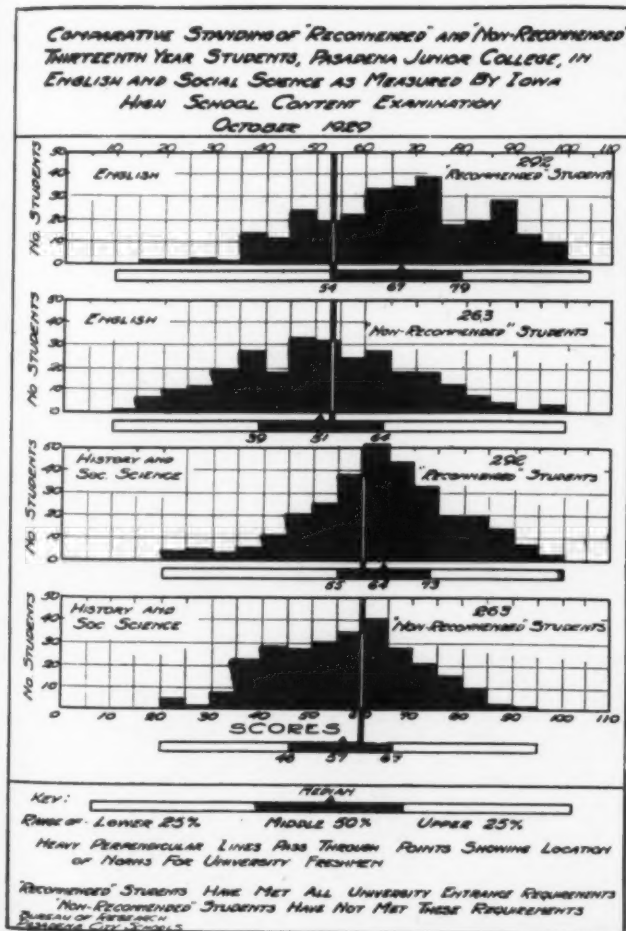


Chart 7.

GRAPHIC RATING SCALE FOR ATTITUDES AND OTHER CHARACTERISTICS

NAME			DATE		
Last	First	Middle	Semester	Year	
MINIMUM RATING		AVERAGE	MAXIMUM RATING		
INDUSTRY					
Works sporadically Habitually neglects work Uses time injudiciously			Carefully budgets working time Works regularly and on time Makes judicious use of time		
0 1 2 3 4 5					
ACCURACY					
Does inaccurate work Thinks indiscriminately Expresses ideas incorrectly			Accomplishes exact work Thinks discriminately Expresses ideas precisely		
0 1 2 3 4 5					
INITIATIVE					
Lacks intellectual curiosity Seldom starts anything new Easily succumbs to difficulties			Evidences intellectual curiosity Initiates undertakings Finds ways to overcome difficulties		
0 1 2 3 4 5					
RELIABILITY					
Neglects promises and obligations Inclined not to admit error when wrong Is inclined to be unreliable			Fulfills promises and obligations Admits error when shown to be wrong Is dependable in word and deed		
0 1 2 3 4 5					
COOPERATION					
Avoids worthy group activities Does not subordinate self to group Seems unhappy in teamwork			Participates in worthy group activities Subordinates self to group Seems happy in teamwork		
0 1 2 3 4 5					
LEADERSHIP					
Prefers plans made by others Fails to secure support for his cause Lessens enthusiasm of the group			Plans for and directs others Usually wins support for his cause Adds to the enthusiasm of the group		
0 1 2 3 4 5					
PHYSICAL VITALITY					
Avoids vigorous activities Exhibits little physical endurance Possesses physical weakness of personality			Physically active in vigorous activities Exhibits physical endurance Possesses physical forcefulness of personality		
0 1 2 3 4 5					

INSTRUCTIONS: Keeping the definition of the trait in mind, rate the student between "Minimum" and "Maximum" by placing a check (✓) appropriately on the line. Try to locate the student according to his standing relative to the average for his age. The check may be placed anywhere on the line.

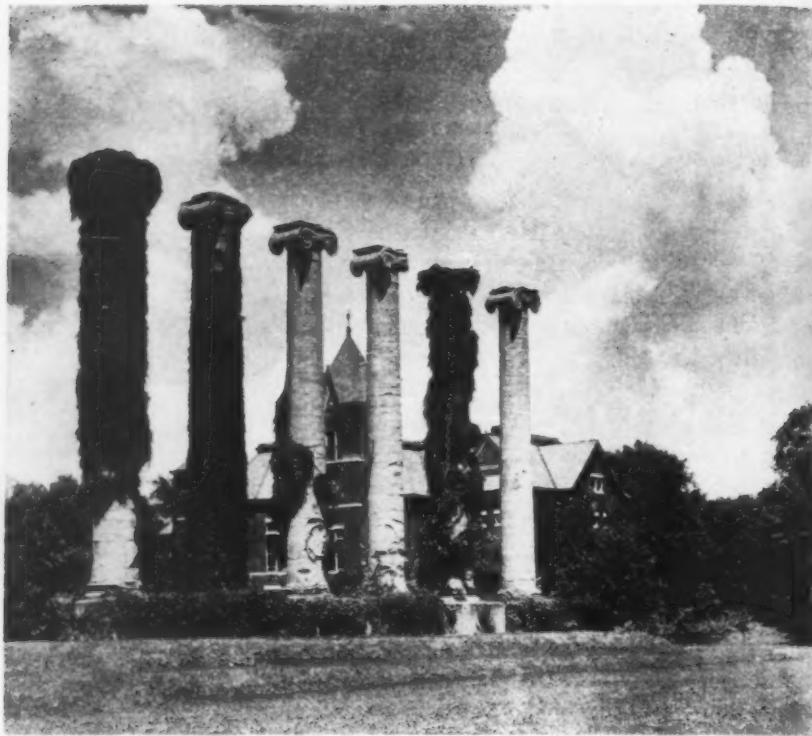
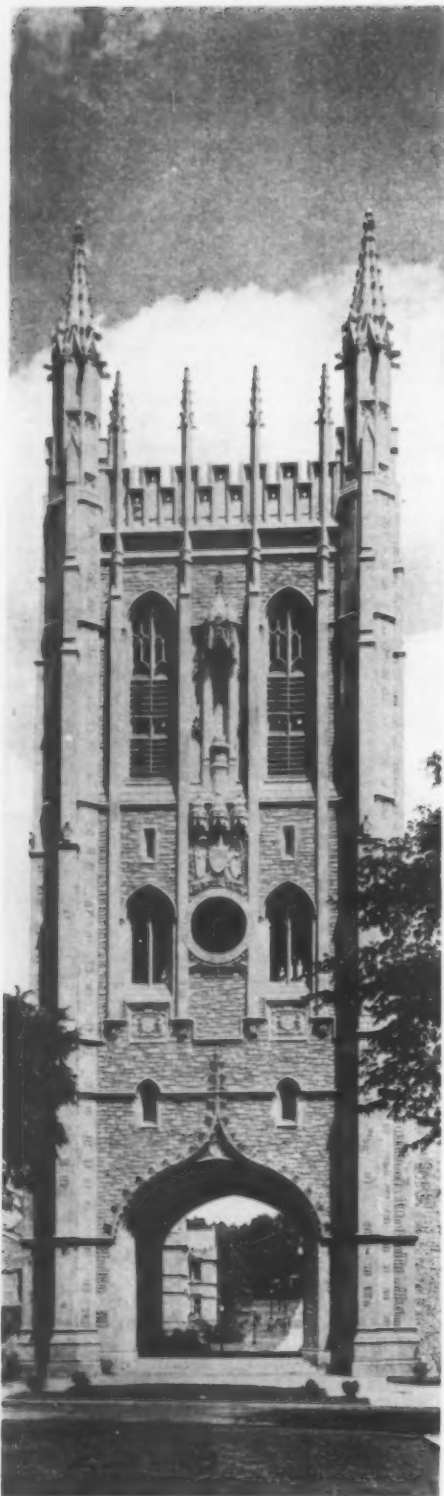
PERSON RATING _____ SCHOOL _____

This graphic rating scale indicates the technique employed in assembling data on personal characteristics.

ratings in industry and cooperation could accompany simultaneously both low achievement as measured by standardized tests and high marks as awarded by teachers. A detailed study of the charts will reveal many other significant facts of relationship. Innumerable other qualities of personality, no doubt, had a determining influence in the assignment of teachers' marks. The list of qualities in our rating scale was too limited to show all the contributing factors.

What Marks Should Show

What, then, is the remedy? Can the situation really be improved? Briefly, we should say teachers should use a mark that stands definitely for scholastic achievement but should have other marks that stand just as definitely for the possession of desirable human qualities. The cumulative records of pupils should contain both. Let us keep apart the things that are different and thereby avoid unnecessary confusion. Heterogeneous ingredients, when scrambled, can be unscrambled only with the greatest difficulty.



'Round the Columns are clustered all the traditions of the University of Missouri. The Columns, all that was left of the first building of the university when it burned in 1892, stand in the center of Francis Quadrangle.

Ivy-colored Jesse Hall is the dean of buildings on the old or "red" campus, having been built to replace the first building. From it are directed all the activities of the university.

Memorial Tower

honoring students killed in the World War, was made possible by gifts of alumni and students. Through the archway may be glimpsed the new or "white" campus.



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How Cleveland Protects the Health of Its Working Pupils*



Careful physical examinations and systematic follow-ups are a part of the program to assure the best development of those pupils who leave school to enter industry

BY LEE H. FERGUSON, M.D., DIRECTOR OF HEALTH SERVICE, WESTERN RESERVE UNIVERSITY, CLEVELAND

MUCH has been said about child labor, but too often there has been too much theory and not enough fact. This paper will attempt to present the essential facts about the children of Cleveland who go into industry and to analyze the problem in its relation to the education of the child, to the health of the child and to the health of the community. These facts are based on the nearly nine years I have spent in the medical administration of the Ohio State Child Labor Law in Cleveland. In that time we have examined between 90,000 and 100,000 children and from our records we are able to present a definite idea of conditions as they exist in one of the large industrial centers of the United States.

It is my opinion that the problem of the working child is not primarily economic or even physical; rather it is educational and should be settled by those who have the educational viewpoint. Gradually in our child labor legislation we are swinging over to the position that up to the time our boys and girls are eighteen years of age, their mental, moral and physical development is a matter of greatest public concern. This is the foundation on which all of our child labor laws

are built. The community cannot afford to sell its birthright of boys and girls for a mess of industrial pottage or to barter away lives for business supremacy. Be it said to our shame that this has been done in the past and is being done in some places at the present time.

Child labor legislation has gone through three stages. The first was in the form of laws giving factory inspectors the power to require physical examinations of children found at work who appeared to be physically unfit for employment. The next form of legal provision permitted the officer who issued the working certificate to require a child who did not appear physically fit to be examined by a physician before he could obtain a permit to work. The third stage, and this is the one that is carried out in the Ohio law, is represented by requiring a physical examination of every child obtaining a working permit. At present the Ohio law does not require the yearly examination of all children who are working, which means that after the certificate has been issued the responsibility for the health of the child is entirely up to the employer and the state officer who supervises working conditions in industry.

The child labor law of the state of Ohio is a part of the general educational statutes and, as

*Read before the eleventh annual meeting of the Canadian Social Hygiene Council, Toronto.

these laws are being revised constantly, the child labor sections are the object of numerous attacks. So far we have been able to save the law almost in its entirety but I am not sure how long we shall be able to do this. It is said to be one of the best child labor laws in the United States and it is doubtful if any Federal statute that is ever enacted will be nearly as strict. The provisions of the law stipulate that no working certificate of any kind may be issued to children under fourteen years of age. This does not mean, of course, that children under fourteen are not working. They can carry papers and hold other outdoor jobs that do not entail long hours. From fourteen to sixteen years of age children can remain in school and work part time, that is after school on Saturdays and during vacation time. After the child is sixteen he may leave school permanently, provided he has completed the seventh grade. He is obliged to obtain a working permit for every position he holds up to the time he is eighteen years of age. Mentally retarded children who cannot complete the seventh grade are given working permits when they are sixteen; foreign children who are sixteen are permitted to work during the day and go to night school. It will be seen from this that the law is elastic enough to meet the various situations that arise. At the time he applies for a permit, the child is required to present evidence as to the date of his birth, the schooling he has completed and evidence of *bona fide* employment.

Some Advantages of Child Labor

Perhaps I should say at the very start that I am in favor of child labor. This is based not only on my experience but on the fundamental fact that properly supervised work has a distinct educational value to the child in the development of initiative, imagination and constructive ability of all kinds. Owen Lovejoy, secretary, National Child Labor Committee, once said that at some time in the future our children might be permitted to go to work at six years of age in order that they might early learn the educational value of work. Of course, it would be work under the most vigorous and careful supervision. It is possible that we have lost something in our complicated educational system of to-day which was given to the child in the simpler home, economic and school life of the past. Formerly, all the children in the home had work of some kind to perform, a definite task that was theirs, and we must admit that these various home duties helped materially to develop the child. Perhaps we shall come back to this idea and give our children supervised work at an early age. Anyway, at pres-

ent our task in a city like Cleveland is not to prevent child labor but so to regulate and control it that the community as a whole will gain thereby and the future development of the child will not be jeopardized.

Assuring the Child's Best Development

For many children work is the very best education they are capable of getting; and to keep them in school beyond sixteen years of age is an economic waste of the taxpayers' money. I feel, however, that because of the mental and physical instability that the average child experiences between the ages of fourteen and sixteen years, it would be best to keep him under the regular school régime until he is sixteen years of age. Even after the child goes into industry at sixteen we must still look upon him as an educational problem. The mere fact that he is not able to continue in regular classes after he is sixteen should not make our concern for him any the less or excuse us from our responsibility in the matter. After nine years of experience with children in industry I am led to believe that the right kind of industry does not hurt children physically; if they work under proper conditions their growth and development are not stunted. If we can balance the occupation carefully against the capabilities of the child in such a way as to produce the maximum of mental development and efficiency, we shall have a system that is economically sound, and educationally is good practice.

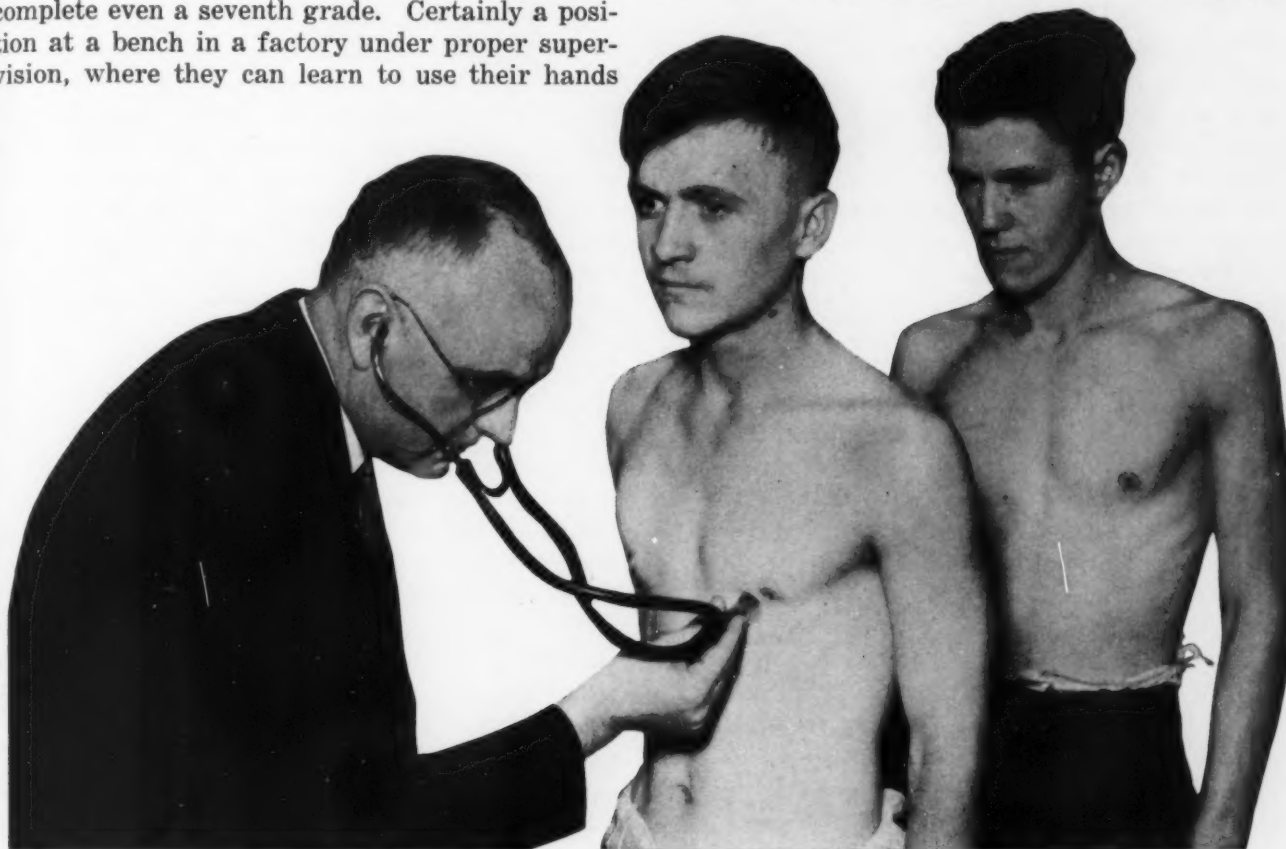
From this viewpoint, then, the question we have to decide is, where can a child of sixteen be assured of the best, all around development that will give him the maximum of usefulness and stability in the community? I do not think that any general answer to this question is possible. Every case must have individual attention. Those pupils to whom a school curriculum is best suited should stay in school, and every effort should be made not to let them drift away. Some should stay in school and work part time, and many others should leave the regular school system altogether and complete their education in industry.

To provide a scheme that is elastic enough to suit all cases it seems that the interim, cooperative or continuation school is an absolute necessity. This growing cooperation between industry and our educational system should react to the advantage of both. In times of great activity industry can draw freely on the school system for help and when there is industrial depression the children will not be compelled to remain idle. This type of school will help to preserve the balance between education and industry. With

careful vocational guidance in many cases the child's education will profit by his working and industry will gain through its direct contact with our educational system.

Roughly speaking, the children that come to us for permits fall into three groups: In the first group are those who are definitely mentally retarded, with an I. Q. so low that they cannot complete even a seventh grade. Certainly a position at a bench in a factory under proper supervision, where they can learn to use their hands

tional guidance many of them will develop into very valuable community assets. On the other hand, if they are permitted to drift from one position to another, depending largely on fate to settle their future, it is quite likely that eighteen will find them just where they were at sixteen. It is to this group that the interim school with special courses is of great service.



A thorough physical examination is necessary before working permits can be issued. Unknown valvular heart lesions, pulmonary tuberculosis, hernias and other serious conditions are often found.

in some useful occupation, is a great blessing to them and no doubt to their teachers who must feel like singing the doxology when they leave. Many of these children with a mental age of from six to nine years really should have institutional care, but we have no place for them. A job for them under supervision is the next best solution of the problem. If they are sound physically, we give them retarded permits and they go out to such tasks as putting nuts on bolts, making boxes or something equally exciting.

In the second group are children who at sixteen have completed the seventh or eighth grade, but who have reached about the maximum development possible under the regular school system. Unless they show special talent in some one direction which the school system can develop, most of these children can make more rapid progress working; and if, for the two years between sixteen and eighteen, they are given careful voca-

In the third group are those children of normal mentality who at sixteen years of age reach the ninth, tenth or eleventh grade and who leave school because of some whim or some economic necessity in the home, or because of lack of appreciation of the value of an education by either the children or their parents. Of course, in a large foreign population such as we have in Cleveland, this last reason is common. Still, I often wonder how children can reach the tenth grade in our school system without any knowledge of the value of what they are doing. Of course, much of the attitude of the children is due to lack of encouragement on the part of their parents. This is illustrated by the case of a bright Italian girl who came to us for a permit. She was in the tenth or eleventh grade and wanted me to persuade her father to let her stay in school. I used all the arguments at my command for the education of this girl, but my logic

was of no avail. The father assured me that if she were a boy that would be a different matter, but for a girl to go to school was of no use. Finally, he wound up with this: "Anyway, she has a lover, and will get married, so what's the use." Evidently in his mind, brains were not essential to matrimony.

Which Children Should Enter Industry?

To sum up, then, the educational aspects of the child labor problem, I should say that many children are physically able and so constituted mentally that they should leave school at sixteen years of age and go to work. Since the regular school system has done practically all that it can do for them in its curriculum, supervised work for them at some useful occupation is the best form of future mental development. Likewise, carefully selected individuals from the so-called normal children would probably be just as well off outside of school as they are in, provided they too are supervised vocationally until they are eighteen. As far as the other children are concerned—those who have possibilities for the highest type of mental development—we ought to make it just as hard for them to leave school as possible. In no case should they be permitted to drop out without talking over their individual problem with the principal or the vocational director. If industry is going to draft our boys and girls from the school system, let the community through its school officials select the ones who are best suited, physically and mentally, to make the change. Then let us watch them carefully until they are eighteen years of age and enter adult life. This is the only way we can bring each child in the community up to his best development.

I shall now discuss briefly the foundation on which can be built such a medical department as we have in Cleveland for the examination of children going into industry. The primary essential, of course, is a child labor law that is strict enough to cover all the possibilities of evasion. Fortunately, in Ohio we have such a law and in Cleveland we have splendid cooperation from the juvenile court and the law enforcement agencies. We are careful about the number of cases we take into court. To take a child into court is a last resort. Once it is done the court will see that results are achieved.

In the second place, the personnel of the medical department must be carefully selected. Unless the doctors who are entrusted with the routine examinations of such large numbers of children are good clinicians the tendency will always be to make a hurried rather than a thor-

ough examination. When we remember that in so-called well children we are constantly dealing with early disease conditions such as tuberculosis, heart trouble and many other serious diseases, the necessity of having an efficient personnel becomes evident. Otherwise what is called a physical examination degenerates into a medical "blessing."

Of course, any health work in a city as large as Cleveland must be carefully tied up with the work of the board of health and of all the various social service agencies. We are fortunate in having the finest kind of cooperation from all of these, and the board of health through its dispensaries helps us materially with our lung cases. We also refer a large number of cases to private doctors and dentists who are usually careful about sending us reports and giving every help possible.

How Other Agencies Cooperate

In addition there are four other agencies with which there must be a maximum of cooperation in order to produce good results. These are the hospitals, the various industries, the schools and the parents. Consider for a moment the first of these—the hospitals. In Cleveland we have many large hospitals and when they realized the large volume of work that we were compelled to do they were glad to give us every assistance possible. It would be quite impossible for us to carry all the equipment necessary to make a complete examination. In fact I do not see any reason why we should go to the expense of purchasing equipment which we can have access to in a near-by hospital. The result of this cooperation is that we are constantly referring large numbers of children to hospitals for examinations of all kinds and the hospital in turn sends us a complete report on the case. In other words, we are able to focus on any case practically without expense to the individual, the best modern diagnostic procedures that the hospital affords. It is easy to understand what a help this is in the diagnosis of lung conditions, heart conditions, congenital syphilis, nose and throat conditions, eye conditions and anything that may require more careful attention than we can give in our department.

In the second place, we must have cooperation from the various industries throughout the city. Over a period of years the best concerns in the city of Cleveland have come to realize the importance of medical supervision for all children in their employ and the result is that they not only send the children in for the initial examination to obtain a permit but they are also quite

Checking teeth defects is an important part of the work of the department which issues working permits for school pupils. Forty-two per cent of those examined have teeth that are a menace to health.



willing to have them return for a follow-up if it is necessary. The result of this is that at the present time in Cleveland large numbers of children are working on temporary permits who return to us for a check of various conditions so that their health is not jeopardized. We have, for example, large numbers of heart cases who have been placed in occupations that will not damage their hearts and, by having them return to us at periodic intervals, we are able to maintain their efficiency over the period of years that they are under our supervision. When they are released from our supervision at the age of eighteen we try to get them to go to their family doctor who will continue their care. In other words, we have educated our heart cases, lung cases and other chronic disease cases to an understanding of their own condition so that they will be able to continue as economic assets in the community.

Medical Department and Schools Cooperate

The third factor in the schedule is the school system itself. It is extremely fortunate that in Cleveland the medical department is closely related to the attendance department which has to do with the child accounting in the school system. The information as to whether a child is in or out of school, whether he is working with or without a permit and what the economic status of the home is—these facts and many others are constantly at our disposal to guide us in giving each case the individual attention which it may need.

Nor should the cooperation of the parents in the solving of the child's problem be overlooked. When the large foreign population of Cleveland

is considered, it is easy to understand how difficult it may be to obtain the full cooperation of parents in every case. Many of them are ignorant of what is necessary for the child's welfare and still others apparently are little concerned about this matter. I have made it an almost invariable rule when there is any question involved in the child's case to ask the parents to call and have explained carefully to them the exact condition and why we think it necessary that the child should do certain things. It is remarkable to see how quickly parents will respond to this careful courteous treatment. If, for instance, the child has a hernia and it is explained to the parents that this is a serious condition and one that may handicap the child for life, they are usually willing to have the operation performed as soon as they are financially able to do so. It is remarkable the number of major operations we are able to arrange for in this way. Often the parents come to see us in a very aggressive mood, but when they find our interest is entirely for the welfare of the child, their attitude changes quickly.

Now let me analyze the problem more specifically as it presents itself in Cleveland. There are approximately 31,000 children in Cleveland, sixteen and seventeen years of age. Of this number 16,000 are in public and parochial schools and the other 15,000 are in private schools, staying at home or working with a permit. We can account for about 10,000 or 12,000 yearly and feel that the child labor law is about 80 per cent enforced. It can be seen readily that if these children have no educational or vocational guidance between the ages of sixteen and eighteen they will never attain maximum efficiency in the business world.

It is because this group does represent at least one-half of our population that I feel they should be given as much consideration as the children who are in school.

We are at the present time examining approximately 12,000 children yearly for working permits. Of this number fully 75 per cent are sixteen and seventeen years old. The remainder are fourteen and fifteen. It may be interesting to state just what the physical inventory of such a large number of children will show. Out of every one hundred children examined, 18 are poorly nourished; 42 have teeth so poor that they are a menace to health; 11 have seriously defective vision; 1 has hernia; 3 have been in contact with tuberculosis in their homes; 4 have tonsils that need attention; 2 have discharging ears; 1 in 1,000 has manifest tuberculosis; 1 in 1,000 has congenital syphilis.

There are many other defects that can be mentioned, such as skin diseases, eye diseases, nose and throat troubles, but the list given contains the principal defects. In any group examined,

60 per cent to 70 per cent are rejected on the first examination because of physical defects. This is astonishing when it is considered that a great majority of these children have come through a public school system that has an excellent medical service and where the health of the pupils is carefully supervised.

Statistics, however, do not adequately give the real value to the community of the physical inventory of such a large number of children each year. It is in reality a check on the general health of the community and each defect found in a child must be regarded as a health thread which, when it is followed back into the home and given proper attention, may be of tremendous economic value to the community. There are, for instance, the 318 children whom we have listed as tuberculosis contacts. Usually these cases are referred to the nearest city health dispensary where they are registered and followed. In this way we are constantly checking up on the foci of tuberculosis in Cleveland. Most of these cases are carefully followed by the board of

Eleven per cent of the pupils who apply to this department for working permits have defective vision. Here refractions are checked and the eyes are examined before permits are issued.



health and are given x-ray treatment if necessary. This is not only of great value to the individual but it also helps materially to lessen the incidence of tuberculosis in the city.

Just how important the physical examination of these children is can be best illustrated by some case reports. I remember a splendid Bohemian girl who wished to go to work in an office. Her physical examination showed that she had active tuberculosis, involving three fourths of her left lung. Tubercle bacilli were present in her sputum. It is obvious that not only was she seriously sick but that for her to have gone to work might have spread tuberculosis in the place where she was employed. She was referred to Lakeside Hospital, an x-ray was taken, the diagnosis was verified and, through the cooperation of the board of health, she was admitted to our tuberculosis sanatorium at Warrensville. All of which means that the community has done all in its power to restore this girl to a place of usefulness. She should make a splendid recovery. The significance of this is simply that health work always rests on a sound economic basis and that it does pay.

What the Examinations Show

How valuable the results of these physical examinations can be is shown by the case of a girl who was found to have suspicious luetic teeth and was referred to her family doctor for a blood Wassermann test. Not only was her blood positive but subsequently it was found that her mother and two younger sisters also had positive Wassermans. In other words, the family was definitely syphilitic and all the cases were brought under treatment at St. Luke's Hospital. Who can say what the discovery of this syphilitic family may mean to the community?

I remember another girl who was considered as a case of congenital syphilis on account of her eyes. Eventually the blood of the father was tested at Lakeside Hospital and found to be positive. In this case the health thread saved the bread winner of the family.

One or two out of every one hundred children examined are found to have organic heart trouble. These children, except when there is evidence of decompensation, are all placed in positions that will not damage their hearts and in this way they are able to work indefinitely. If the lesion is a serious one and they are mentally qualified we can refer them to the state rehabilitation bureau for vocational help until they reach the maximum of their economic usefulness. All of these heart cases are kept under observation at our office and return every few months for a

check. In this way we are able to keep them all working and at the same time no damage is done to their heart condition.

It will be seen from the preceding report of the results of the physical examinations made that the whole problem is really a sifting process by which the children are brought up to the maximum degree of physical fitness and are placed in occupations that cannot in any way be detrimental to their growth and development. The only defect that I can see in this system at the present time is that too many children leave school to go into industry who in reality have the capacity and often the desire to complete their education.

When it is properly regulated, child labor should be regarded as a major educational problem of the community. The value of work, even for children, cannot be denied. Our problem is to see that such work reacts for the benefit of the child and also for the community. Whether a child is in school or whether he is working, up to eighteen years of age, the community should be concerned about his physical and mental development and willing to take active supervision of it. The basis for this supervision is a child labor law sufficiently strict to produce the results desired. When carefully administered, as it can be even in a great industrial center, such a law will protect the employer, the individual and the community. Our task is not the cold, mechanical administration of a law, but rather the law is merely a means of giving to our boys and girls who are making the change from school to industrial life the largest measure of real service, so that they may attain the best mental, moral and physical development of which they are capable.

Helping "Backward" Pupils in New York City

New York City has a new plan by which it hopes to help "backward" and "problem" pupils and at the same time cut down the cost to the schools of carrying "repeaters" says the *Survey*.

This plan includes: the establishment of a behavior clinic for maladjusted pupils, representing concentration and extension of the present visiting teacher work; a considerable increase in the number of ungraded classes; assignment of specially qualified teachers for individual work with maladjusted pupils; a summer evening high school to relieve retardation and help economically handicapped pupils; enlargement of the bureau of reference, research and statistics, to make possible an evaluation of the effort made.

Teaching School Officials to Handle Their Own Publicity

A practical course in school publicity in which superintendents, of small systems particularly, are learning how to interest patrons in school activities, is described here

BY CALVIN T. RYAN, A.M., ED.M., STATE TEACHERS COLLEGE, KEARNEY, NEB.

PUBLICITY for schools is no longer a questionable practice. Legitimate school publicity has passed the stage of being of questionable value. It has even gone beyond the stage of being a necessity; it is now considered a duty.

Superintendents and principals owe to the patrons and supporters of the schools over which they officiate, honest, consistent and constructive educational information. This information must deal not only with the *what*, the *why* and the *how* of the local school administration and procedure, but also with the whole field of educational practice. Patrons have not kept up with the rapid progress education has made during the present century. They should not be expected to know many of the technicalities of the science of education. They hire specialists and experts for the manipulation of those technicalities. Unless they are, however, what we might call intelligent consumers of education, the experts and specialists will be handicapped in their work.

Officials of the larger school systems are much better protected. Consequently they will find the dissemination of school news much simpler than will the officials of the smaller systems, particularly those in rural communities. The superintendent of a consolidated school, in a town of 200 somewhere in the prairies, has a much greater task to keep his constituents thinking constructively about school matters, ready to add to their taxes for school support and to cooperate with the teachers.

What Editors Think

One student enrolled in the first class I ever conducted in school publicity was a teacher in a county high school situated in a town of 200, the patrons of which, according to the student, made their living by bootlegging. Another was principal of a high school in Colorado, with eighteen teachers, in a town of 850. Most of the parents were merchants and ranchers. Officials of schools like these are the ones who need to

know something of the technique of publicity.

Superintendents of larger systems have many more sources of publicity, but recent surveys show that they do not utilize all their media to the maximum. Dr. Rollo G. Reynolds¹ found that newspapers wanted more school news, and that editors regretted that school officials would not cooperate with them. "The majority of editors expressed their belief in the news value of school matters and in the desire of the newspaper reading public to get that kind of news," Doctor Reynolds says. "Many editors expressed the opinion that only by intelligently informing the public of school matters through the daily press can school officials hope to get proper financial support for the public schools."

The Newspaper Is the Best Medium

For the superintendent or principal of a small system, the newspaper is his most reliable medium. Whether this paper is a small town daily or a county seat weekly, it should carry school news. For special campaigns, the newspaper is effective. According to the survey of Peck and Stevenson,² the most effective means of increasing financial support for rural schools are: personal interviews; mass meetings; favorable talks before local clubs and lodges; newspapers.

H. R. Best,³ in a study of high schools with enrollments of 300 or less, situated in towns in various parts of the states of Nebraska and South Dakota, found that 70 per cent of the superintendents used the newspapers to disseminate information concerning the public schools.

Whether publicity is used for special campaigns or for what business men call "good will advertising," the newspaper is a safe medium. Editors want school news, for news of children is always good news. A teacher in a Middle-western one-teacher school can use no better

¹Reynolds, Rollo G., *Newspaper Publicity for the Public Schools*.

²Peck and Stevenson, *Rural Publicity*, Educational Research Bulletin, Ohio State University, vol. 2, No. 18.

³Best, H. R., *A Study of Publicity Employed to Increase Rural Pupil Attendance in High School*, Educational Research Record, University of Nebraska Publication, vol. 2, No. 1.

source to arouse interest in education in general and in her school in particular than to see that the newspaper in her community is supplied with items about her pupils.

School news is good news, provided it is interestingly written. One reason, a very pertinent reason, too, that more school news is not published is that school officials, whether superintendents or teachers, do not know how to write a news story. Educators are miserably poor journalists. A colleague of mine told me that she had stopped giving to the college paper any items about her department, because the editor always spoiled them by leaving out the important part. I asked her where she put the most important part of her story, and she answered, "At the end, of course." Shades of Horace Greeley!

School men and women of experience come into my course without knowing that a news story is written upside down, with the climax first. Of course they have read newspapers all their lives, but they have never noticed the technique of a simple story.

One editor of a small town daily told me that he put more stuff from teachers and preachers into his waste basket than from any other group of would-be reporters.

It is unfair to criticize an editor for not running more school news when the fault is not his. I am aware that newspaper men frequently lack the school point of view. They know news and how it should be written, but they do not know enough about modern education to present it understandingly or fairly.

What the Patrons Want to Know

Even experienced editors misjudge what patrons want to read about their schools. Dr. Belmont M. Farley¹ found that there was a negative correlation between what patrons are interested in reading and what the newspapers are printing about schools and education. He says: "In every city of the study except one, there is a negative correlation between the interests of school patrons in school news, and the amounts of space allotted to the several topics in the press."

Doctor Farley found that patrons of schools are interested first of all in pupil progress and achievement, then in methods of instruction, followed by the health of the pupils and the courses of study. They are interested least of all in extra-curricular activities; yet these are given by far the most space in the daily press.

Here again we have an urgent reason for better control of school news; but before we can

have better control we must have within the school a better news organization. The person entrusted with this work should know news when he sees it; he should have both a nose for news and an ear for news. Further, he should know how to prepare news stories. The school official most certainly should know the interests of his patrons, and he should be able to turn the events of the school into readable news items.

Teaching Teachers News Writing

In the course in school publicity offered at State Teachers College, Kearney, Nebr., students are first of all taught to recognize news, to know what constitutes news and where it is most likely to be found. In other words, the first two or three weeks of the course are devoted to a study of journalism. Then in connection with the recognition of news, students are taught to write news and to acquire something of a journalistic "swing" in writing. Many of them submit news to their home town papers. Students taking the course this summer supplied their home town papers with accounts of the Silver Jubilee held at the college. In a street parade the students were divided into counties, with a float to represent each county. One of the county floats won first place, a fortunate happening for a student in the class, for he had a front page story in his home town paper.

Students are taught the principles and practices of successful publicity, and shown how to adapt those general principles to the particular form in which they should use them in educational work. They are taught to prepare pamphlets and school exhibits, and how to organize a publicity campaign.

The instructor takes a typical school system, usually one represented by some member of the class, arranges the data and assigns a definite project to be worked out through committees. During the summer session this year the class worked on a school exhibit as part of a campaign to interest the community in a new grade school building in a system represented by a member of the class.

This particular superintendent acted as general chairman, since he knew intimately the needs and was acquainted with the patrons. He also handled the news stories for the two weeklies covering the community. A committee planned the exhibits for the local town hall. Another group worked out a suitable entertainment. Still another prepared a pamphlet to be given out during the exhibit. This pamphlet gave facts concerning the school, facts of interest to the parents and taxpayers with the purpose of influencing

¹Farley, Belmont M., *What to Tell the People About the Public Schools*, Contributions to Education, Columbia University, No. 355.

their vote in an election to determine whether the building should be built. The pamphlet committee consulted a printer with reference to the type. They examined all school pamphlets on file in the office and in the library for the data and layout. One committee was held responsible for reaching and interesting the parents in the exhibit.

Many patrons cannot be reached through the newspaper, for they do not read. Obviously a pamphlet would be ineffective for them. Some patrons will not attend a mass meeting or go to hear an educational address. The exhibit is about the only effective medium left for such persons. It has a certain dramatic appeal, a certain emotional effectiveness.

Obviously the superintendent's report, if one is made, is good publicity. It is frequently ineffective, however, because nothing is done with the contents. The report is sent to the proper authorities, and it is then either filed or thrown into the waste basket. The report is an endless source of news items. According to Peck and Stevenson's survey, the most effective motive in influencing citizens to vote for increased school support in rural communities is "To give one's children as good a chance in life as any children get." A superintendent's report should include data to show whether the children in his school are getting that chance. Through comparisons and contrasts, a man trained in feature writing could show just how a particular school ranks with other schools of the same size and in like communities.

Publicity or Public School Relations?

While there is a growing tendency toward a belief that the schools are justified in advertising themselves legitimately, there are still persons, including some superintendents, who do not favor the idea. Doctor Reynolds found that few superintendents would commit themselves as to whether a portion of the budget should be set aside for publicity, and that among those who believed that there should be such funds, a variation as to the amount was noticeable.

The connotation of the word "publicity" is offensive to some school men. It suggests to them press agents and propaganda dispensers. Even some editors hold the publicity man in horror, and define publicity as advertising that is not paid for. In truth the line that separates publicity from news is thin.

To overcome this unpleasantness, Prof. Arthur B. Moehlman, in "Public School Relations," advises that we discard the word "publicity" in its generally accepted sense, and use public school

relations, which he defines as "organized factual informational service for the purpose of keeping the public informed of its educational program."

Quiett and Casey, in their "Principles of Publicity" say that, "Publicity is current, truthful and interesting information from the point of view of one who desires others to be informed."

Keeping the Public Informed

"Educational publicity," Dr. William H. Todd¹ says, "is becoming recognized as a function of the school. It consists of keeping the community informed as to the facts about the school. It is assumed that if the facts of public education be laid before the people, the school will receive the support warranted by these facts. In short, desirable interest and wholesome attitudes are conditioned by correct information."

Doctor Todd's idea of publicity is certainly the same as that conveyed by Professor Moehlman and, when it is given a special application instead of a general one, it will differ not materially from the idea of Lee Moser, a nationally known commercial publicity expert, who, writing in the April number of the *Quill*, says: "Publicity meets a need of our complex business and social organization and is sound and legitimate in proportion to the sincerity and honesty of the man who writes it, the integrity and purpose of the house he represents and the editorial standards of the publication that prints it. Publicity, in other words, is as good or as bad as those who promote it."

It is in the belief that schools need wider publicity, that school officials are the ones who should at least direct this dissemination of educational information and that patrons and taxpayers have a right to know about the school systems they support, that the course in school publicity for superintendents and principals, particularly those connected with the smaller systems, is offered in the Kearney State Teachers College. However well informed school men may be, however much pedagogy, school statistics and educational psychology they may know, it does not follow that they can tell their school patrons and taxpayers how that knowledge is being applied in any given school. Publicity is as old as civilization itself. In one form and another it exists everywhere. We get it in the backyard fence gossip. We get it in the crossroads grocery store and in the village postoffice. But what school officials need to know is how to organize and systematize publicity. While publicity is old, the technique of handling publicity is new and requires especially trained men and women to handle it effectively.

¹Todd, William H., What Citizens Know About Their Schools, Teachers College Contributions to Education, No. 279.

How Rotary Will Aid in Eradicating Illiteracy in the States

As an example of what the clubs hope to do, the situation in one state—Kentucky—is here outlined together with the program they plan to inaugurate

BY PHILIP LOVEJOY, ASSISTANT SECRETARY, ROTARY INTERNATIONAL

WHEN Ray Lyman Wilbur, secretary of the interior, invited the Rotary clubs of the country to assist in the elimination of illiteracy in the United States, he did it with full knowledge of the immensity of the task as well as with confidence that these clubs would not fail.

The ranking of the United States in the matter of illiteracy is not satisfactory. Although blessed with more wealth than any other country and believing in public education to an extent that far exceeds the dreams of many peoples, the United States stands tenth among the countries of the world in percentage of illiteracy. The thirteenth census of the United States contains this statement: "In some of the more advanced European countries illiteracy is so uncommon that questions regarding it are not included in the general census enumerations."

A recent table of information shows that the advanced nations of the world stand as follows on illiteracy:

Country	Percentage of Illiteracy
Germany	0.2
Denmark	0.2
Switzerland	0.5
Netherlands	0.6
Norway	1.0
Sweden	1.0
Scotland	1.6
England and Wales	1.8
France	4.9
United States	6.0

The illiteracy figures for the 1930 census are not yet available. Thus we may not be certain how many illiterates there are in the United States.

Nearly 4,000,000 Illiterates

Basically, there were nearly 5,000,000 self-confessed illiterates in this country in 1920. In the decade from 1910 to 1920 there was an average annual decrease of 58,426 in the number of illiterates. Let us assume that the number of illiterates decreased in the decade from 1920 to 1930 at the rate of 75,000 annually. This would mean that there are still nearly 4,000,000 illiterates in the United

States. Even if the rate of decrease were to be 100,000 annually, it would take forty years to have the present amount of illiteracy disappear. We have no certainty, however, that this is possible unless special measures are adopted to prevent additional cases and to accelerate the rate of decrease.

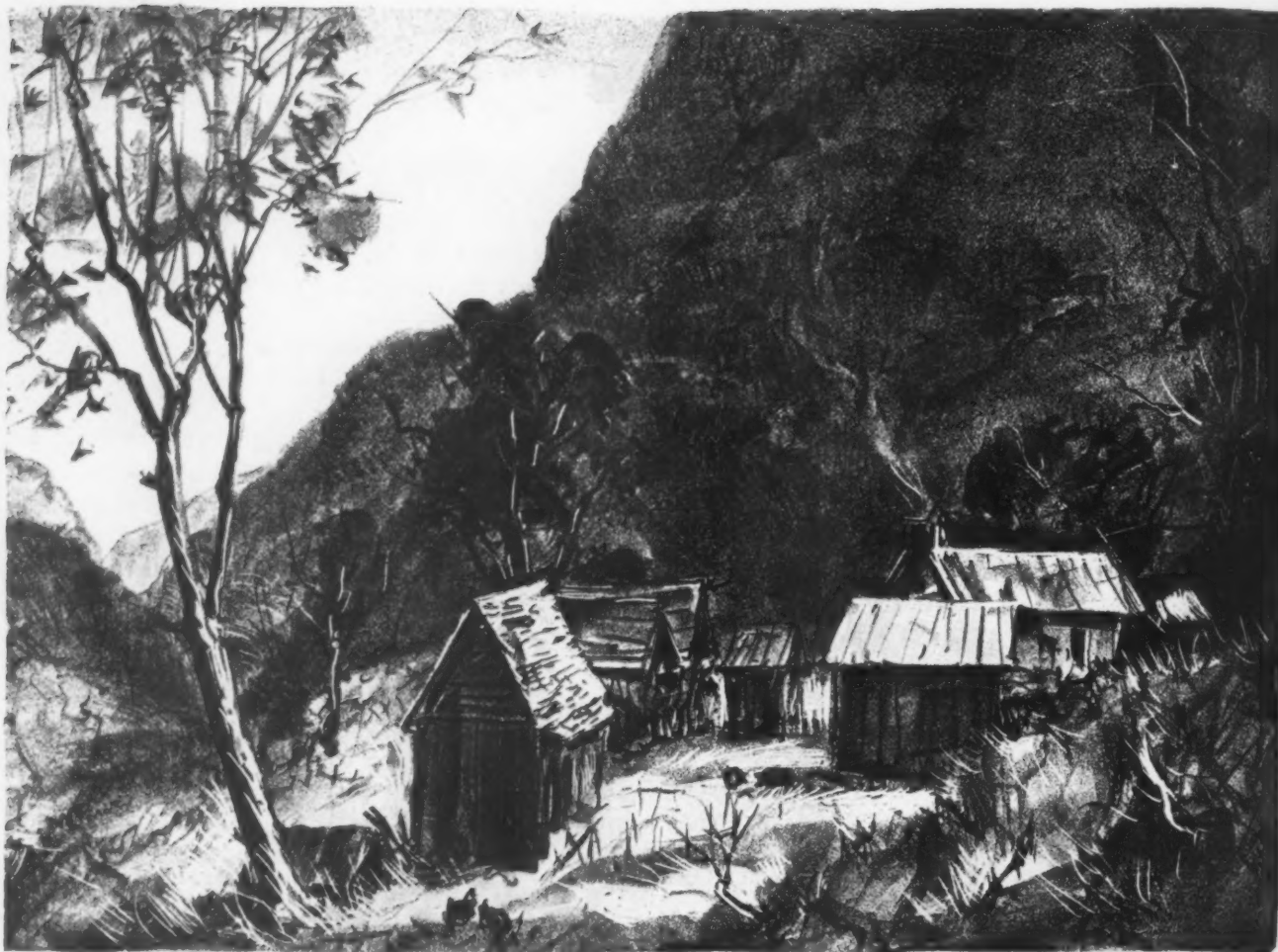
Challenge Is Issued

Doubtless it was these astounding figures that caused President Hoover to appoint a National Advisory Committee on Illiteracy which has given most careful consideration to the problem, realizing full well that the 1930 census would reveal conditions that would not be conducive to national pride. The National Advisory Committee has been desirous of setting in motion every step that might accelerate the rate of decrease.

On February 26, 1930, this committee met in Washington. Ignatius Bjorlee, Frederick, Md., then governor of the thirty-fourth district of Rotary was invited by Secretary Wilbur to take part in the meeting, mainly because Mr. Bjorlee was a Rotarian and also because he was actively interested in educational matters. In the conference, Secretary Wilbur inquired whether Rotary International would be interested in assisting in this problem. Governor Bjorlee suggested that he thought the activity to be one within the scope of Rotary and advised the Secretary of the Interior to issue an invitation, which he did.

Needless to say, Rotary International felt that a real challenge had been presented to it and immediately referred the invitation to the American members of the community service committee for study and recommendation. The decision was that the proposed program was within the scope of community service, that it be approved in principle and that an immediate program of cooperation with the National Advisory Committee be considered and accepted by the Rotary clubs of the United States.

The board of directors under the chairmanship of M. Eugene Newsom, president, Rotary Interna-



Hell's Half-Acre.

W. H. H. H.



Hell's Half-Acre, near the junction of Tennessee, Virginia and Kentucky. Reminiscent of a bygone day, the name still persists, despite the fact that those who live on the half-acre now are honest, upright but uneducated citizens. In places such as these is rich material for the machinery of education.

W. H. H. H.

tional, accepted the report and suggested that the matter be presented at a national assembly of all delegates from the United States at the convention in Chicago. This was done in June, 1930. The delegates from 2,420 clubs in this country unanimously approved the program and gave their unqualified assent to accepting the invitation of the United States Government. From that time Rotary's part in the program that was undertaken

sarily English. In general, an illiterate person is one who has had no schooling.

This preliminary procedure was outlined as follows:

"Determine whether or not an illiteracy problem does exist in the community.

"Survey the local situation to determine what, if any agencies in the community are engaged in meeting this problem and what is being done.

The "Dog-Trot."



Scattered through the mountains are many cabins built in two sections, the inhabitants of which have to trot around outside to go from one section to the other. Hence the name. Thousands of adults who cannot read or write call these cabins home.

for the reduction of illiteracy was underway.

Now two questions immediately presented themselves: What are the Rotarians of the United States going to do? How can they assist? On July 21, 1930, Chesley R. Perry, secretary, Rotary International sent a letter to all presidents and secretaries of Rotary clubs in the United States setting forth the preliminary procedure they might wish to follow. Of course all this correspondence has presupposed a knowledge of the definition of illiteracy which has been accepted in this country as the inability of a person ten years or more of age to read and write in any language, not neces-

"If a community committee has already been appointed by the National Advisory Committee to work in cooperation with the committee, the Rotary club committee should communicate with it and cooperate with it in carrying out the work in every way possible.

"If no community committee has been appointed by the National Advisory Committee, Rotary clubs should promote the appointment of a community committee, through the local chamber of commerce, composed of individuals representing various interested agencies, such as the school authorities, churches, parent-teacher associations,

adult education extension organizations, the American Legion and other service clubs and fraternal orders. In the event there is no chamber of commerce in the community, the Rotary club should devise a procedure for the organization of a community committee.

"If a county committee seems desirable, and if no county committee has been appointed, the Rotary clubs in the county should promote the appointment of a county committee by the National Advisory Committee.

"If a state committee seems desirable, and if no state committee has been appointed, the Rotary clubs in the state should promote the appointment of a state committee by the National Advisory Committee."

The following suggestions as to the work of a community committee on illiteracy were made:

"Make a survey of the local problem.

"Secure census data from National Advisory Committee.

"Make a survey of agencies already working in this field, if any, or agencies available to undertake this work.

"Are such agencies effective? If not can they be made effective? Should some other agencies be set up?

"Assuming creation of proper agencies in connection with the public school system or the parochial school system or both, or other agencies, how can the community committee give effective help?

"Consult the executive heads of such agencies as to problems and progress and ascertain needs so that the work may be handled effectively.

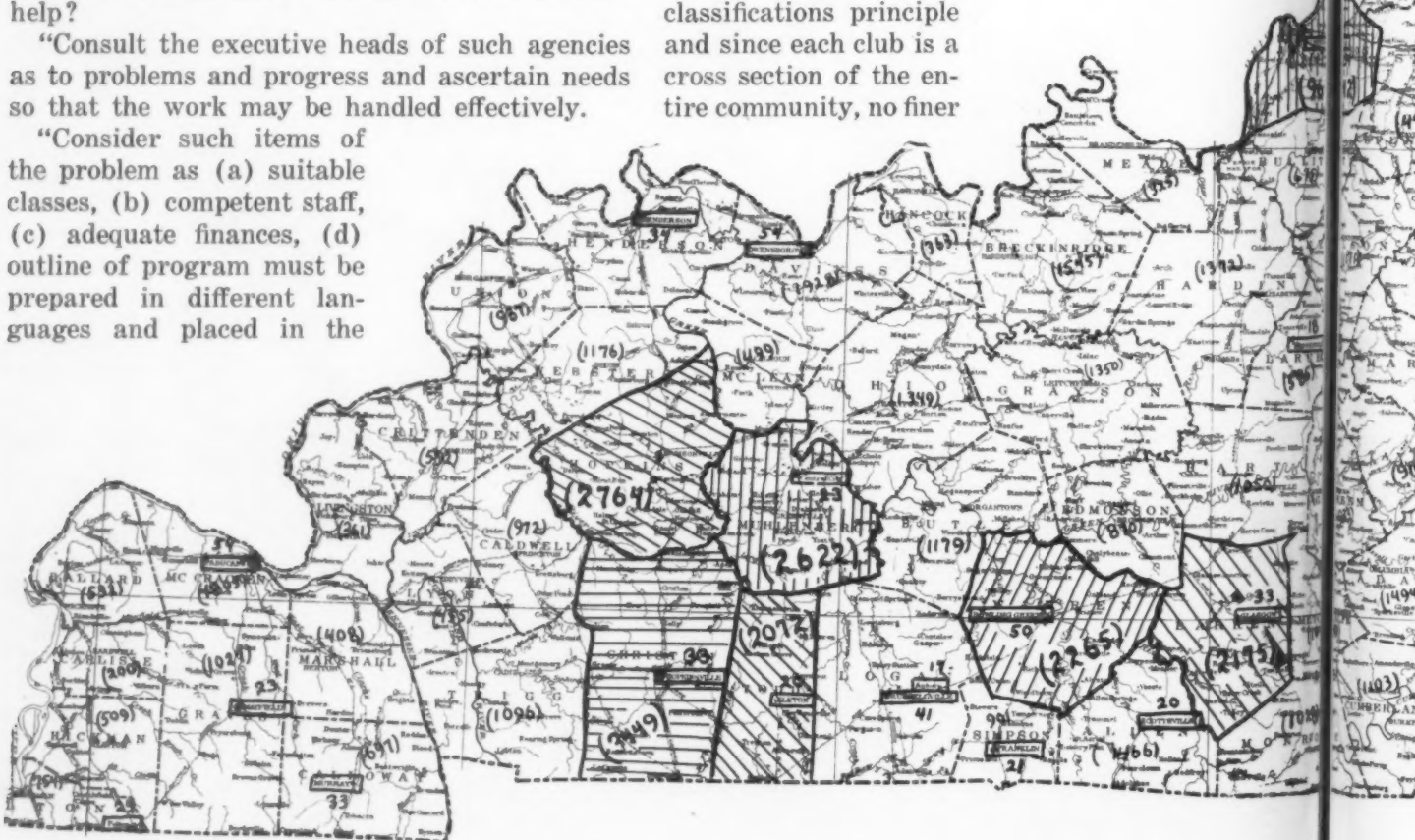
"Consider such items of the problem as (a) suitable classes, (b) competent staff, (c) adequate finances, (d) outline of program must be prepared in different languages and placed in the

hands of students, (e) contacts with prospective students through cooperation of industrial leaders, school children, churches, etc., (f) campaign to encourage students' attendance at classes, (g) caution throughout entire program to distinguish between illiteracy and lack of any particular language in order to avoid embarrassment and offense, (h) the class should not be called the illiteracy class—the committee should create some other name.

"Helpful publicity, such as a discussion of problems at public meetings and before various clubs and through newspaper articles and editorials, is desirable."

In other words, the problem must be attacked from different angles in various parts of the country. Since the problem is more acute in some sections than in others, more efforts will have to be expended in these localities. School superintendents and educators in general should feel particularly interested in the efforts of Rotarians along this line since they will tend to develop among the individual members a more or less complete understanding of local educational problems. After all, why has illiteracy developed in this country? Has the public been asleep with regard to the basic needs of the educational system? Is it not possible that Rotarians can well become interested in other educational problems?

Inasmuch as a Rotary club is organized on a classifications principle and since each club is a cross section of the entire community, no finer



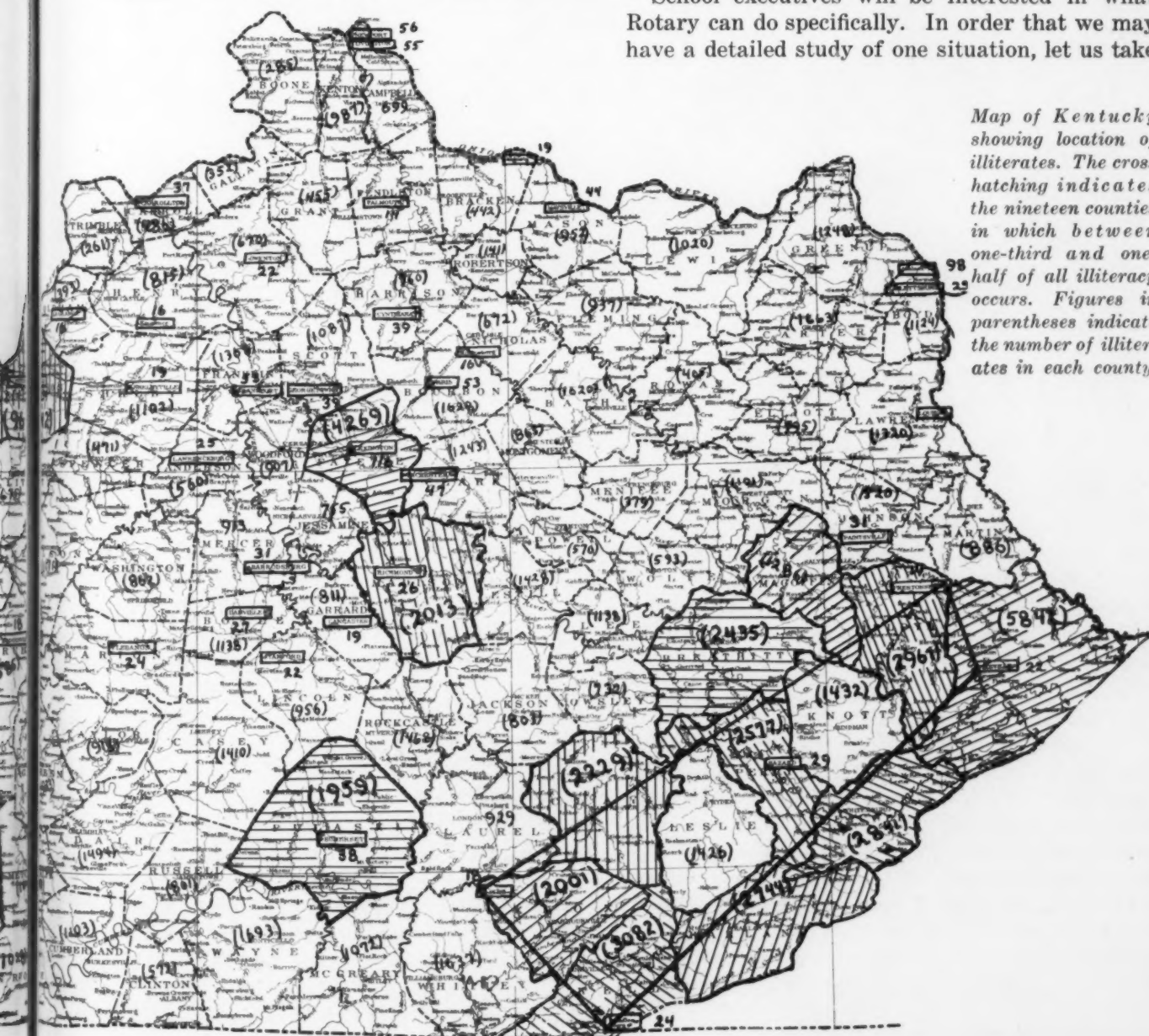
thing could happen within the community than to have Rotarians secure first-hand information about the educational situation.¹ Each school executive should welcome this interest and he should cooperate to the fullest extent. Of course, in many communities the school superintendent is himself a Rotarian. Frequently he has been waiting for just such a step to be taken so that he could present the problems of education to his fellow Rotarians.

This interest in illiteracy will bring to the fore such problems as unequal taxation, unequal opportunity, inadequate equipment, poor salaries, poorly trained personnel, overcrowded conditions, lack of constructive programs, child labor, need of adult and extension education and many other kindred problems.

¹ By its constitution a Rotary club is composed of but one man from each classification of business or profession in a community. Under certain circumstances an additional active member may be elected.

Facts on child labor will receive especial attention since illiteracy usually accompanies it. Communities with the largest proportion of child workers have the smallest proportion of school attendance and the highest rate of illiteracy among the general population. Time makes illiterate children into illiterate adults. Illiteracy is one of the chief causes of poverty, and poverty perpetuates illiteracy. Rotarians will join in a study of this vicious circle, and other social and economic progress will doubtless result. Someone has said that in the last analysis "the destiny of any nation is determined by the schoolmasters of that nation." So now Rotarians are studying in detail the problems of education in this country. Not with a disgruntled attitude, not from a dictatorial standpoint, but with a genuine interest in determining exactly what has been lacking all these years.

School executives will be interested in what Rotary can do specifically. In order that we may have a detailed study of one situation, let us take



Map of Kentucky showing location of illiterates. The cross hatching indicates the nineteen counties in which between one-third and one-half of all illiteracy occurs. Figures in parentheses indicate the number of illiterates in each county.



W. M. Wilson

A mountain schoolhouse where bright-faced, eager children learn the three R's and little else. Every morning during the few months of school their parents see them off, glad that their children can have the chance that was denied to them.

the state of Kentucky and see what the relation is between illiteracy and Rotary.¹

We first wonder if there is a state advisory committee. Having no other source of information, we write to the National Advisory Committee in Washington. We discover that Kentucky has a state committee of twenty-one people, of which the honorary chairman is W. C. Bell, state superintendent of public instruction. The active chairman is W. M. Wilson, superintendent of schools, Pineville.

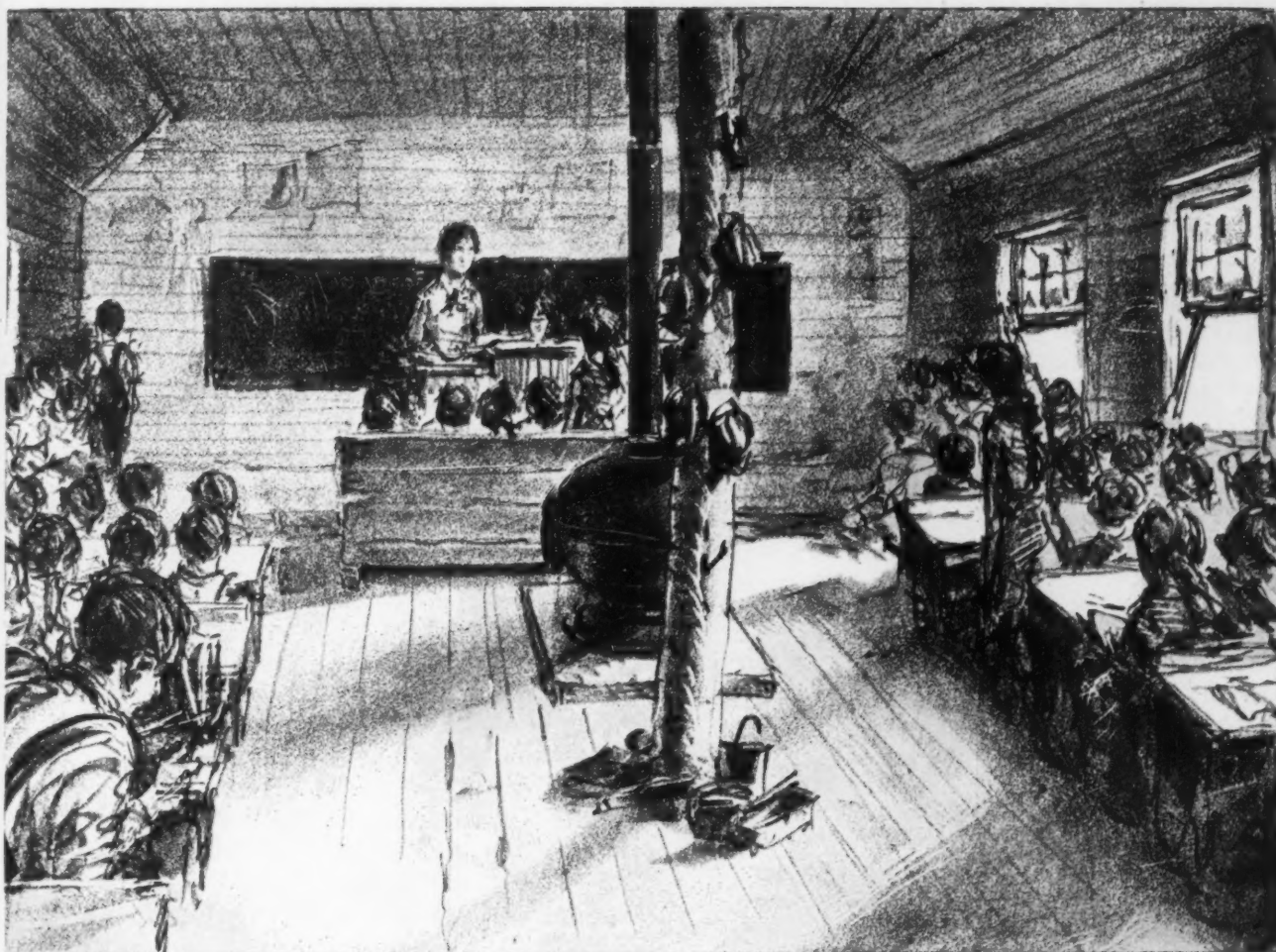
We next seek special information pertaining to the situation in this state. We find that Kentucky stands thirty-sixth from the top in the percentage of the total number of illiterates and that it is forty-fourth from the top in the percentage of native white illiterates. The present figures, which are likely to be reduced by the 1930 census, show that there are 155,014 illiterates in the state, of which 112,206 are native white. We find that this is more than the combined total number of illiter-

ates in the ten states of Idaho, Montana, Nevada, North Dakota, Oregon, Maine, Kansas, New Hampshire, Wyoming and Vermont. Indeed, here is a condition demanding attention.

Do these people vote? We discover that of the 155,014 illiterates in the state, all but 18,770 vote. In other words, there are 136,235 illiterate voters in Kentucky. Specifically we discover that there are nine counties in which illiteracy is more than 15 per cent of the population. In Leslie County, it is 21.4 per cent. We further find that there are only four states in the Union that have a larger percentage of native white illiteracy. These are Tennessee, North Carolina, Louisiana and New Mexico. We also discover that 75,919 of these Kentucky illiterates are under forty-four years of age. Truly this is an appalling situation.

What about the wealth of the state? Kentucky ranks fortieth among the states of the Union in the amount of wealth it possesses for each illiterate in its adult population. Thirty-nine states in the union have more money per adult illiterate than Kentucky. Beyond all doubt, here is a problem

¹ Kentucky is used merely as a specific example for analysis. Conditions equal or greater can be found in other states.



Meonpork

Under what unfavorable conditions do many mountain children acquire the rudiments of an education! Here indeed is a fertile field for those who seek to raise educational standards in the highlands of the South.

that commands the attention of Rotarians, not only in Kentucky but in the rest of the nation as well.

How shall the Kentucky program against illiteracy be financed when thirty-nine other states have more money to do their task than has this state? Let us inquire further. A report from the office of the state superintendent of public instruction indicates that the laws of Kentucky do not permit expenditure of funds from the regular school appropriations for the education of illiterate adults. Here then is a task for Kentucky Rotarians. Shall the state laws be modified? Shall special appropriations be secured? Shall grants-in-aid be received from the Federal Government?

Let us study the accompanying state map setting forth the location of the illiterates. This cross hatching on the map shows the nineteen counties in which between one-third and one-half of all the illiteracy occurs. The figures in parentheses indicate the number of illiterates within each county. The location of the fifty-one Rotary clubs in the state is indicated by a rectangle around a city. The

figures below the rectangle show the number of members in the Rotary club of that city. Let us study this map in several phases.

Take, for example, the extreme southeastern counties. Draw an approximate rectangle with Corbin, Middlesboro, Prestonburg and Pikeville as vertices. The club of Hazard will lie within this rectangle. These five clubs have a combined membership of 107 Rotarians. The counties through which the sides of the rectangle pass or which are included within it—Knox, Clay, Leslie, Breathitt, Perry, Knott, Floyd, Pike, Letcher, Harlan, Bell and Magoffin—contain 30,826 illiterates. The ratio of Rotarians to illiterates in this area is 1 to 288. This shows immediately that Rotary is facing a tremendous task. Especially would this be true were Rotary to attempt to eliminate the illiteracy of and by itself.

It is not the function of Rotary, however, to do a task when there are already existing agencies organized for a specific purpose. Rotary aspires to strengthen the existing agencies. It intends to furnish strength, as it were, and to awaken public

opinion regarding the whole question of illiteracy.

Who are the 107 Rotarians in these five clubs?
Let us check their major classifications:

<i>Pikeville</i>			
Auto	1	Fruits	1
Burial	1	Meat	1
Chemical	2	Furniture	1
Communication	1	Ice	1
Construction	1	Laundry	2
Education	2	Law	2
Electrical	1	Medicine	2
Finance	1	Religion	1
Food	1		

<i>Middlesboro</i>			22
Auto	1	Hardware	1
Beverages	1	Hotels	1
Chemical	1	Iron	1
Clothing	1	Law	1
Coal	3	Leather	1
Dry Goods	1	Lumber	3
Electrical	1	Medicine	2
Finance	2	Real Estate	1
Meat	1		—
Furniture	1		24

<i>Prestonburg</i>			
Auto	1	Law	2
Chemical	1	Medicine	1
Education	1	Mineral Oil	1
Engineering	1	Religion	1
Finance	1	Transportation	1
Insurance	2		
Iron	1		14

<i>Hazard</i>			
Agriculture	1	Insurance	2
Associations	2	Jewelry	1
Chemical	2	Law	4
Coal	3	Lumber	1
Dry Goods	2	Medicine	1
Education	1	Religion	1
Electrical	2	Transportation	2
Food	2	Water	1
Furniture	1		

<i>Corbin</i>			29
Auto	1	Insurance	2
Chemical	1	Law	
Clothing	1	Lumber	1
Dry Goods	2	Medicine	3
Engineering	1	Real Estate	1
Meat	1	Religion	1
Furniture	1		—
Ice	1		18

But this is exactly where the Rotary club can best function. Based on a classification principle, we are at once given a cross section of the population of this area. The members are outstanding in their profession and business. They can filter information back through their entire craft and to their constituency. Surely here is an excellent means for arousing public opinion. Each Rotary club in appointing a special committee to ascertain illiteracy facts, will discover many details that we cannot touch upon here.

There are, however, dozens of counties in which no Rotary club exists. The study of illiteracy therefore cannot be local. Each Rotary club must ascertain the conditions of counties adjacent to its own and proceed to arouse a public consciousness in those localities. Let us take the thirteen cities of the state that have a population of more than ten thousand. In these we know that there are at least 16,607 illiterates. In all but one of these cities, Fort Thomas, there is a Rotary club. The Rotary membership of these twelve cities is 880. The ratio of Rotarians to illiterates is therefore 1 to 19. The task here is not nearly so difficult as in the southeastern counties. Over the entire state the ratio is 1 Rotarian to 81 illiterates. This means that there are more Rotarians, more facilities, more wealth in the urban centers. Hence a wider view must be taken.

As we have said, illiteracy exists in many counties where there are no Rotary clubs. We discover that the wealth is small in many of these counties. We discover that the roads are in poor condition much of the year. We discover that the present school situation is not one that can adequately provide for the present youth of the county, let alone caring for adults also. Present educational appropriations cannot be used for this adult illiterate work. In many Kentucky schools to-day we find a one-room structure in which the teacher has from fifty-five to eighty pupils. We find a dearth of library books and practically no pictures on the walls of the school room. The Rotarians of the cities must therefore extend their activities out into the county fields.

What the Club Can Do

We begin to see that no single local Rotary club is going to solve this problem. It would be out of reason to expect the club to pay the costs involved. There are some specific things, however, that the club and its members can do.

1. Each Rotary club throughout the state can make a detailed study of the situation by working in conjunction with the state illiteracy committee. It must ascertain what the conditions are in its own locality, in adjacent territory and in the state as a whole. By means of its regular meetings, these studies can be developed so that the membership will be adequately informed concerning state-wide conditions. Each Rotarian will then work back through the other organizations and associations of which he is a member, endeavoring to arouse public interest in the problem. Newspapers can carry information pertaining to the situation. Ministers can discuss the facts. Bankers can inform their depositors. Educators can provide open forums. Grocers can talk with their customers.

The state must become literate minded. It must be awakened to its problem.

Another thing that the Rotarians will do is to make the topic of illiteracy a part of the district conference¹ to be held in the Spring of 1931. Every phase of the problem must be presented so that the Rotarians are more fully aware of statewide conditions and their implied needs.

2. After a thorough understanding of the problem has been developed, the local Rotary clubs through their district conferences and through the various channels provided by associations of their individual members, will attack the financial problem. It will be necessary in this case for the legislature to change the state law making it possible to use educational appropriations for the education of illiterate adults. It is possible that this will require a great deal of time and agitation if the usual procedure of state financial legislation pertains. The preliminary campaign of information, however, will be most useful in this activity.²

New Laws Needed

Once this bill has passed the legislature, it will be necessary to arouse the public to the extent of being willing to have its local school tax rate raised to assist in this problem. This especially applies to the cities and more wealthy areas of the state. Since much of the illiteracy is not in cities and not in counties that possess great wealth, it will be necessary for Rotary to lend its efforts to strengthen the already existing laws pertaining to equalizing of opportunity through a statewide distribution of educational money.

The status of equalization within the state of Kentucky is vitally important. We glean some interesting figures from the biennial report of State Superintendent W. C. Bell: "The state fund represents in some instances 10 per cent of the funds expended in the cause of education while in some county districts it represents 80 per cent. In addition to these funds there are local levies. Levying a tax of fifty cents in Jackson County and adding the amount realized to the state per capita makes a grand total of \$12.28 per pupil for the boys and girls of Jackson County, while it becomes \$53.92 in Fayette County.

"We see here emphasized the fact that property valuations have a vital relation to the funds produced by levying and collecting the same rate of 50 cents in different counties. For instance, the tax

rate levied and collected in Fayette County produces more than eleven times as much per pupil as does the same tax rate when levied and collected in Jackson County.

"It is well to note here that all expense of operating the schools in the various school districts of the commonwealth is not borne by the state. A large percentage of it is borne by local taxation which, due to the fact that property valuations vary so greatly in different school units, does not provide equal educational opportunities for boys and girls resident within the respective school districts even though the maximum tax rate be levied.

Unequal Educational Opportunities

"The dual system or plan of levying and collecting taxes for the support of public schools in the various school districts of the state does not provide equal educational opportunities for all boys and girls. Levying a maximum tax rate of seventy-five cents in some Kentucky counties produces less than \$5 per pupil, whereas levying that same maximum tax rate of seventy-five cents in other Kentucky counties will procure in some instances fifteen times as much per pupil. The perfectly logical and natural result of this is that counties having low property valuations must of necessity be denied the privilege or opportunity of employing the best trained teachers for their schools.

"A study of further financial factors within the state shows some interesting features which of course must be taken into consideration by anyone who is making a study of the educational needs of the state. For instance for every \$100 saved in Kentucky \$22.40 was expended for education. For every \$100 invested in life insurance \$63.90 was expended for education. For every \$100 invested in building construction \$28.48 was expended for education. For every \$100 invested in passenger automobiles \$13.61 was expended for education. For every \$100 spent for luxuries \$31.25 was expended for education. For every \$100 paid in taxes to the Federal Government \$58.17 was expended for education. For every \$100 paid in taxes to state and local governments \$34 was expended for education. For every \$100 paid in combined taxes to Federal, state and local governments \$21.46 was expended for education."

Where Federal Aid Is Needed

Inasmuch as the state stands in fortieth place as far as wealth per illiterate is concerned, it will be necessary for the Rotary clubs of Kentucky to combine with those from other states and bend every effort towards obtaining federal financial aid. In other words, Rotary is not provincial. The problem of illiteracy is not localized. It is a na-

¹ Each spring the various districts of Rotary International hold localized conferences. The application of the ideal of service to problems within a specific area as well as national and international is discussed.

² Rotary International as an organization or a specific Rotary club as such does not demand social legislations. The Rotary club serves as a medium of instruction regarding a problem. Individual Rotarians then act as their judgment best demands. The desire for certain social legislation is not to be construed as anticipating any reciprocity of favor, political or otherwise.

tional crisis and Rotary must aid in getting the nation as a whole to solve its problem. Illiterates in Kentucky are as much a blot on the civilization of the United States as are illiterates in Washington, D. C., or in Portland, Ore., or in cultured Boston. Certainly the mobility of our present population makes illiteracy a national problem.

3. Many Rotary clubs will discover immediately that a crying need is for books. It is the desire of the national committee as well as of each state committee to cause the people of the state to become book minded. Leaflets and pamphlets while useful are not satisfactory. If we can make America book minded, it may be possible to raise the level of intelligence and culture several points. People will then develop personal libraries. The illiterates must therefore learn their lessons by means of books. Three adequate books have been prepared and are being distributed by the Johnson Publishing Company, Richmond, Va. These books cost thirty cents each. The books are graded and have been written with the adult illiterate especially in mind. They are not citizenship books. It has been figured that twenty-four lessons, two hours each, four nights a week for six weeks, will be sufficient to cover the first reader.

Rotarians as Teachers

The illiterates need books. Thousands of them will be needed. Rotary clubs themselves can provide the temporary funds for these books while they are conducting their larger campaign for finances.

4. Rotary can do what it did in many communities in the case of crippled children. After it has made its survey and ascertained its problem, it can go out and get the illiterates and bring them into schools. It can organize special schools. It can follow up that magnificent work of the moonlight schools and see that schools are provided on other than moonlight nights. In many cases a Rotarian can take the teacher to the people. It must be remembered that many of these folks live back in the mountains where transportation is difficult. The people can be brought to local centers. The teachers can be taken to the people. Rotary can stem this gap for the time being until better facilities are provided.

5. In many cases where there is a shortage of teachers, many Rotarians will find a real pleasure in teaching these folks themselves. The Kentucky survey of Rotarians showed 137 doctors, 91 educators, 85 financiers, 64 lawyers, 41 ministers, among the Rotarians of the state. Many of these can be of personal service as teachers. Hundreds of additional Rotarians will have had sufficient background to teach classes themselves.

In this way they will be able to augment the present service that is being so graciously donated by many of the teachers of the state who are conducting classes four nights a week without pay. But they cannot be expected to go on doing this week in and week out in addition to their regular work. There is a limit to human endurance. Some teachers can stand it physically, but at least the worker is worthy of his hire. In many cases additional teachers will have to be obtained and their caliber will be in proportion to the salary paid. Better teachers can be secured with more money; hence the need of state and Federal funds in carrying out the plan.

6. In attacking this problem of illiteracy, the Rotarians of the nation will become acquainted with basic educational problems. We may expect a far greater understanding and sympathy in the months that are ahead. No doubt America's public schools need to be strengthened. Rotarians will realize that the habits, ideals and attitudes of the next generation are now being influenced by the public schools. The illiteracy campaign will permit them to realize this the more. They will learn that better compulsory attendance laws must be passed. They will learn that schools must be open at least from eight to nine months each year in every state. They will see that proper methods of accounting for each child within the state are prepared. They will see that all children are guaranteed instruction from capably trained teachers. They will see that all schools meet certain minimum standards. They will make certain that equal opportunity is provided for all in accordance with ability. To that end state equalization funds will be provided.

A Means to an End

They will see that all citizens keep themselves informed as to their schools. They will see that only the best people serve on the local boards of education. They will see that plans are developed for the retention of capable teachers. They will see that teachers are attracted and held by adequate salary schedules. They will see that inadequate one-room rural schools are replaced by modern consolidated schools with opportunities and facilities provided for rural children that shall be equal to those of their urban brothers. Lastly they will see that this nation becomes educationally minded to the extent of eliminating social problems other than illiteracy.

The invitation of Secretary Ray Lyman Wilbur is a means to an end. Rotary has been called. The educators of this country trust that it will accept the call and that the children of the nation will benefit thereby.

Administrators Consider Textbook Selection

In Oakland, Calif., a plan of textbook selection has been adopted that provides for scientific evaluation of available material by a specially selected committee working with the research department

By DR. RICHARD E. RUTLEDGE, DIRECTOR OF RESEARCH, OAKLAND PUBLIC SCHOOLS, OAKLAND, CALIF.

THE problem of the best method of textbook selection for the city school system of Oakland, Calif., has been given much attention by school administrators. A satisfactory scheme of selection must provide for a scientific evaluation of the available material, which should be checked by the teachers as to its suitability for use in the class under consideration.

City school systems have used or are now using one of the following three methods, or combinations of them:

1. Selection by committee. The superintendent of schools appoints a committee of teachers and department heads for each subject for which new books are being selected. This committee reviews the available materials and recommends to the superintendent its first, second and third choice of texts.

2. Teachers' ballot. Each subject teacher is asked to submit a ballot of her preference or preferences among the texts submitted for consideration, and the superintendent's choice is based on an analysis of these preferences.

3. Analysis by the research staff. This staff is asked to prepare blanks for an analysis of the texts in various fields, to apply the criteria contained in these blanks to the materials submitted and to present to the superintendent a statement containing the books submitted in each field, in order of merit.

Various Methods Are Condemned

The defects of each of these three methods of selection seem obvious. The method of unguided selection is subject to the charge of prejudice and is open to undue influence of agents. The straight teachers' ballot usually fails to give a clear-cut decision and leads to a campaign by more vigorous members of the teaching staff who will work for votes for their personal choice of texts. Selection by the research department alone is open to the criticism of being undemocratic and of being liable to omit some of the items that should be taken into account.

For the adoption of textbooks in the Spring of 1930, the superintendent of schools of Oakland approved a combination plan that proved satisfactory and that includes elements of each of the three plans listed. The details of the Oakland plan follow.

Teachers List Their Preferences

Shortly after the opening of the Spring semester, two blanks are sent to each secondary school teacher in the system. One of these blanks lists the courses of instruction in which textbook adoptions have expired, and the second is a form on which teachers are asked to list additional texts for which they feel a need. The data on these blanks are tabulated and the textbook committee of the superintendent's council, consisting of the superintendent of schools, the assistant superintendent in charge of secondary schools and the director of research, determines which fields shall be open for adoptions, using as criteria for their decision the extent of the demand and the amount of money available for new books. Teachers and publishing companies are then notified of the courses in which new textbooks are to be adopted, and publishers are invited to submit publications.

A committee of outstanding classroom teachers is appointed for each subject, to work in conjunction with the research department in preparing complete rating scales for the analysis of the books. The committee is then supplied with the material submitted by the publishers and is asked to make a detailed analysis showing both the strong and the weak points of each item offered for consideration, with the privilege of rejecting any material that is obviously unsuitable.

At a meeting that all teachers of the subject are required to attend, the committee reads its report on the strong and weak points of each book as judged by the scale it has constructed, but does not rank the books in order of merit. At this meeting no discussion is allowed from the floor as to the relative merits of the books. The

only discussion allowed is that which will clarify or interpret the report. Up to the time of this meeting, the representatives of the publishers have been free to call upon teachers.

After the committee's report has been made publishers' representatives are asked to discontinue their selling campaign, and the teachers are given ten days to study the books submitted to them by the committee. Teachers working on the committee are not allowed to express an opinion as to the relative value of each book. The committee acts purely as a fact finding agency.

At the end of this ten-day period each teacher rates each book on a short form of the analysis blank prepared by the committee and expresses thereon her first, second and third choice of text-

that for the first time in several annual adoptions there was a majority of votes cast for one of the books submitted in each field open for adoption in the Spring of 1930. Publishers' representatives expressed themselves as well pleased with the opportunities afforded them.

In selecting the teacher committee and in administering the plan, sufficient time should be allowed for the construction of a suitable scale and for thorough analysis of the textbooks submitted.

School	Teacher	Date
Evaluation Scale on the basis of 100 points, distributed as follows: Contents - 95, Mechanical Make-up - 5		
Write names of books evaluated		
I. CONTENT. A. Subject Matter. Total 95 1. Vocabulary. 16 a. Practical (1) As to length. (2) As to content. 2. Grammatical Features. 39 a. Presentation and arrangement: (1) Lessons well graded. (2) Content graphically presented. (3) Small amount of new material in each lesson. (4) Drill exercises: (a) Varied. (b) Graded. (c) Sufficient in quantity. (4) Co-ordinated with: 1) Vocabulary content. 2) Grammatical content. (c) Planned for repetition and correlation of material previously studied. b. Reviews: (1) Frequent. (2) Comprehensive. (3) Varied. 3. Reading. 25 a. Vital. b. Graded. c. Interesting. d. Illustrative of grammatical content. e. Conducive to conversation. 4. Illustrations (pictures, charts, maps, diagrams). 15 1. Attractive. 2. Pertinent. 3. Graphic. 4. Adequate in number. 5. Aids to instruction (preface, appendix, index). 5 II. MECHANICAL MAKE-UP. A. Durability of binding. B. Printing. 1. Clearness. 2. Size of type. 3. Spacing. 4. Clearness of illustrations.		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
List on back of outline additional information and remarks. Scale prepared by the following committee: Miss Gertrude Woodward, chairman; Miss Patricia Moorhead; Mrs. E. de Fromery; Miss Elfrida Steindorff.		
RECOMMENDATION FOR ADOPTION		
1st choice	2nd choice	3rd choice

Outline for evaluating French grammar books.

book. The teachers' ballots are summarized by weighting each choice by the number of classes in the subject taught by the teachers submitting the ballot, and the result is forwarded to the committee of the superintendent's council on textbook selection. The committee in turn recommends to the board of education the books to be adopted.

The success of the plan is indicated by the fact

School	Teacher	Date
Write names of books evaluated		
G - Good F - Fair P - Poor		
I. PHYSICAL ASPECTS. A. Attractiveness to pupil. B. Mechanical features.		
II. SUBJECT MATTER. A. Interest of subject matter. B. Application to varying levels of intelligence. Inclusion of extra material for higher levels. C. Articulation with sixth and ninth grade work. D. Relation to present course of study. E. Adequacy of material. F. Analysis of content of material.		
III. ORGANIZATION AND PRESENTATION. A. Adaptability to modern methods of teaching. Can omissions be made without destroying continuity? B. Gradation of material from simple to complex. C. Self-teaching features. D. Teaching aids. E. Type and distribution of drill, test, and review material.		
IV. SPECIAL FEATURES.		
List on back of outline additional information and remarks.		
Scale prepared by the following committee: Ralph Halmsten, chairman; Miss Dorothy Davis; Mrs. Mildred Snyder; Mr. C. P. Finger.		
RECOMMENDATION FOR ADOPTION		
1st choice	2nd choice	3rd choice

NOTE: This sheet is to be returned to the Administration Building, Office of the Superintendent, on the regular school delivery on Thursday, February 27, 1930

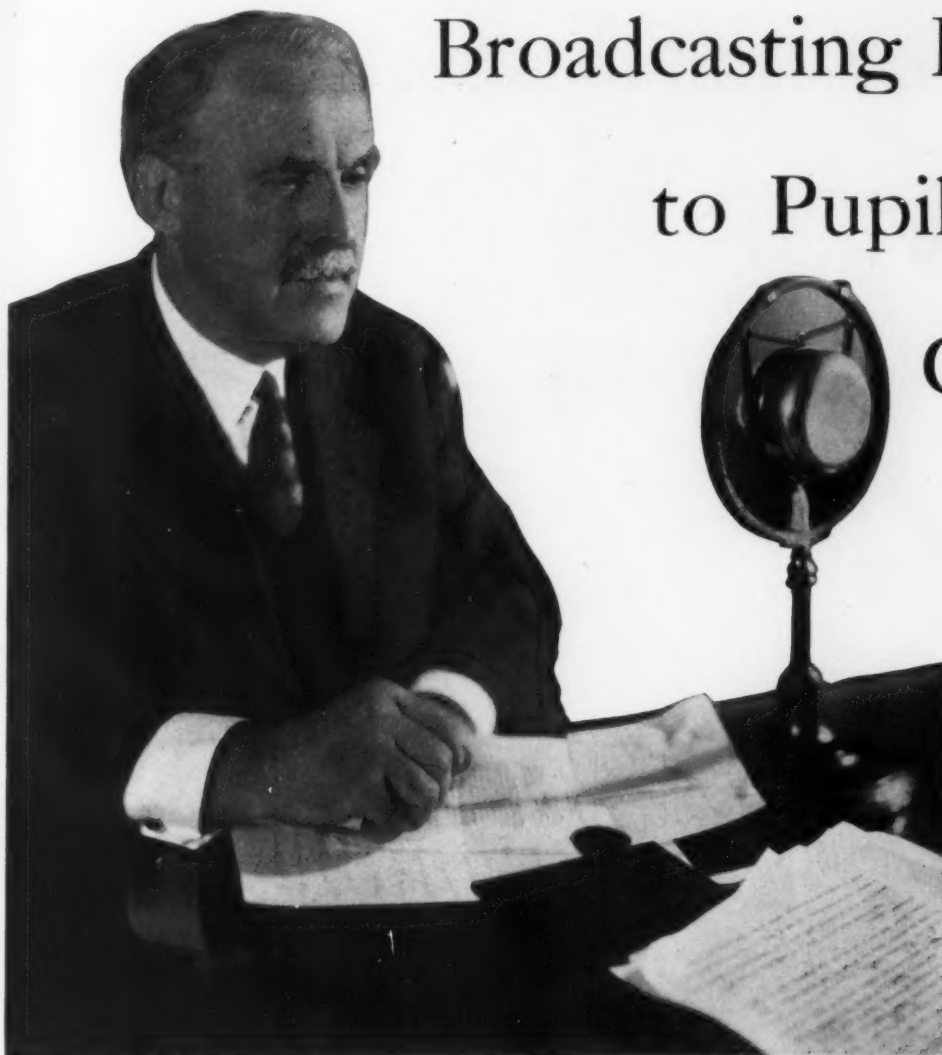
Outline for evaluating seventh and eighth grade mathematics books.

This factor is vital to the success of the plan and will obviate any criticism of superficiality or unfairness because of hasty judgment.

The scale should be constructed before the books are examined so as not to allow the selling points of a particular book to enter into the scale itself, as may be the case when a committee lacks proper understanding of its job or good supervision, or is subject to the exaggerated statements sometimes made by book salesmen.

Since rating scales are always of interest, samples of the scales developed by teacher committees are presented. It will be noted that in these scales an attempt has been made to avoid little understood technical terms and at the same time to list the most important criteria that should be applied in the selection of secondary textbooks.

Broadcasting Education to Pupils of Chicago and the Midwest



The radio programs planned by Chicago teachers and carried by WMAQ to 800 schools in half a dozen states are proving a practical supplement to regular classroom instruction

BY G. P. DRUECK, JR., CHAIRMAN, RADIO PROGRAM COMMITTEE, CHICAGO PUBLIC SCHOOLS

A FEW months ago, Dr. Ray Lyman Wilbur, secretary of the interior, writing in *School Life*, hailed the radio as a tremendous step forward in the development of our educational equipment.

"To-day it is possible to have a great teacher give instruction for all of the pupils in a given grade in all of the schools of a single community or state," Doctor Wilbur said. "There is no possibility of replacing the classroom teacher, but there is the chance that someone with special qualities of voice and personality may be able to project himself or herself into the thinking and training of thousands of youths." And Doctor Wilbur summarizes his whole discussion in this key statement: "Radio lengthens the personality and power of the teacher." That this is true is

being proved to-day in a variety of ways and places, but with particular significance through the radio program that has been developed as a part of the regular activities of the Chicago public school system.

In order that we may picture Chicago's radio projects, it is necessary to view briefly the background of incidents that led to the formulation of the program now in operation.

Several years ago, the *Chicago Daily News* station, WMAQ, under the guidance of Judith C. Waller, the station's vice-president and general manager, began to broadcast educational features. From the beginning of radio broadcasting, Miss Waller felt that there was a place for education in a radio program. During the early years of WMAQ's existence, the time allotted to it for



Virginia, a grammar school pupil, uses the school microphone to tell her 1,600 schoolmates of the many advantages she has obtained from her school's various extra-curricular activities.

Photos by Frank J. Hazard.

broadcasting did not make it possible to include features other than entertainment, but with increased facilities and extension of time, opportunity was afforded to discuss the matter with the two universities in Chicago. A connection was made by Miss Waller with both the University of Chicago and Northwestern University, a series of lectures was planned and the station's educational career launched. The first really constructive effort in this direction was the broadcasting direct from the classroom of a series of lectures on "Contemporary Thought," given at Northwestern University.

How the Program Began

A booklet was prepared giving the subject of each lecture, an outline, and a few pertinent questions pertaining to it and a photograph of the lecturer. This course was broadcast for several years. It proved extremely popular and was put on at an hour in the evening when it was assured a large audience. But when WMAQ became commercial, that was one of the needed hours and the course had to be dropped, although Miss Waller made this move with great reluctance.

During this time, the station was also broadcasting weekly a series of two evening lectures of twenty minutes each from the University of Chicago. These are still in progress, the subject matter as well as the lecturer being decided upon by the radio committee appointed by the university president.

A little more than two years ago, WMAQ began broadcasting college courses picked up in the early morning direct from the University of Chicago classrooms. At first little publicity was given to these broadcasts, but last year Prof. Percy Boynton prepared a course on American literature since 1890 and, in connection with his talks, an outline and bibliography of the course were mimeographed and sent to anyone requesting a copy. It is interesting to know that the resulting requests ran well into the thousands. At the opening of the spring quarter, this course gave way to one on philosophy given by Prof. T. V. Smith. Virtually all of Professor Boynton's audience requested outlines of the new course and other listeners were added as well. As the popularity of these well organized broadcasts grew, a demand arose for language courses, with the result that Miss Waller

provided regular broadcasts of both elementary and advanced courses in Spanish, German and Italian.

Coincident with these developments, which had no connection whatever with public school education, Miss Waller developed a feeling that educational broadcasting could find a definite place in the curricula of the public and parochial schools. She soon learned, however, that there were no radio sets in the schools and of course boards of education did not see fit to have them installed until such time as they felt the radio stations had something worth while to offer the schools in the way of a program. Radio stations in turn did not feel that they wanted to build school programs until the schools were equipped to receive them.

One day the principal of one of the Chicago elementary schools, Fannie Smith of the Goudy School, went to Miss Waller's office with the information that the Parent-Teacher Association of that school had presented to the children a good radio set. Miss Waller felt that here was an opening, and promptly utilized it. Arrangements were made for broadcasting occasional lessons that would fit into the Chicago course of study. At

the end of that year it was found that about a dozen schools had obtained home type radio sets and were listening to these programs. From that small beginning, with the demonstration that something of importance could be accomplished, with the feeling that some subjects could be presented to the children through the radio in such manner as to give definite aid to the classroom teacher and with the assurance that speakers of unusual excellence might be secured to talk to the schools, an enlarged program was developed for the next year.

When the School System Took Charge

The Chicago Board of Education, through its administrative officers, awoke to the importance of the radio lessons and gave whole-hearted support to Miss Waller and her staff in a variety of ways. Gradually WMAQ's public school program assumed such proportions that Miss Waller could no longer keep it under her personal direction, with the result that supervision of the public school broadcasts was given over to Harold O. Totten, a staff member, under whose direction they continued until the close of last year. By the

Principal Drueck of the Marquette School, Chicago, makes his daily announcement of bulletins to teachers and pupils, thus saving his time and theirs.



WMAQ EDUCATIONAL RADIO PROGRAM 1930-1931

(Sample of Music
Program only)

Week of the School Month	Period	Monday	Tuesday	Wednesday	Thursday	Friday
I	9:10 to 9:30	Waltz Marx and Anne Oberndorfer Gr. 3-4	Geography Roy J. Snell Gr. 4	Science Grant Smith Gr. 7-8-9	Literature Hedwig Alexander Gr. 4-6	History Andrew J. Townsend Gr. 8-9
	9:55 to 10:15	Chicago Symphony Marx and Anne Oberndorfer Gr. 7-8-9	Geography Roy J. Snell Gr. 5	Science Grant Smith Gr. 5-6	Literature Miss Ellen Olson Gr. 1-3	History Andrew J. Townsend Gr. 6-7
II	9:10 to 9:30	March Miss Rose DuMoulin Gr. 3-4	Char. Educ. Miss Sophie A. Thielgaard Gr. 7-8-9	Science Miss Margaret Cornell Gr. 1-2	Literature Miss Elma Boughton Gr. 7-8-9	Art Miss Lucy Silke
	9:55 to 10:15	Chicago Symphony Miss Rose DuMoulin Gr. 7-8-9	Geography Roy J. Snell Gr. 6	Science Grant Smith Gr. 5-6	Literature Hedwig Alexander Gr. 4-6	Art Miss Lucy Silke
III	9:10 to 9:30	Mozart Miss Agnes Lapham Gr. 5-6	Geography Roy J. Snell Gr. 4	Science Grant Smith Gr. 7-8-9	Literature Miss Ellen Olson Gr. 1-3	Art Miss Lucy Silke
	9:55 to 10:15	Mozart Miss Agnes Lapham Gr. 7-8-9	Geography Roy J. Snell Gr. 5	Science Miss Margaret Cornell Gr. 3	Literature Miss Elizabeth Rowe Gr. 7-8-9	Art Miss Lucy Silke
IV	9:10 to 9:30	Clarinet Marx and Anne Oberndorfer Gr. 5-6	Geography Roy J. Snell Gr. 7-8-9	Science Miss Margaret Cornell Gr. 4	Book Club Turner C. Chandler Gr. 7-8-9	History Andrew J. Townsend Gr. 4-5
	9:55 to 10:15	Stories in Mathematics Annas Higgins	Geography Roy J. Snell Gr. 6	Health Miss Hallene Thomsen Gr. 5-6	Book Club Turner C. Chandler Gr. 4-5-6	Cur. Events Andrew J. Townsend Gr. 7-8-9

end of the school year 1929-30, the number of Chicago schools receiving the broadcasts regularly and the evidences of appreciation that poured into the superintendent's office were of such consequence as to bring about a development of tremendous significance. The Chicago public school system actually took over under its own management the entire public school program of WMAQ, and that program is now as much a part of the regular activities of the Chicago public schools as are any of the many other features of the system.

organizing and managing the actual program broadcasts. There was a fifth committee which was headed by Prof. Wilbur W. Hatfield, English department, Chicago Normal College, which operated in conjunction with the college and served as a sort of propaganda group for the purpose of stimulating general interest in radio as an educational tool.

The program committee began its task in the late spring of 1930 with the object of preparing a program that would be ready to go into effect at



An eighth grade class is listening to a science lesson that is being broadcast. Supplementary material for this course consists of wall charts and booklets.

Soon after Supt. William J. Bogan had made his decision to assume charge of the WMAQ public school broadcasts and make this project a part of the routine work of the Chicago system, he gave into the hands of Rose A. Pesta, assistant superintendent, the task of working out the details of operation. Miss Pesta created four committees of principals and teachers. One of these was for the purpose of investigating the educational radio activities in other parts of the country. The second committee was charged with the duty of creating a system of reports on the radio reception in the various schools. The third was delegated to study the problem of equipment for reception and the fourth committee, of which G. P. Drucek, Jr., is the chairman, was charged with the duty of

the beginning of the present school year. Perhaps it would be well to list briefly the principal fundamental ideas that served as a foundation for the committee in its work. The committee assumed that education is essential and that the American people are seeking every possible means of making the educative process more effective. It was convinced that an effective educational system is so expensive that rural districts and small centers of population enjoy a lesser opportunity for educational advantage than do the children in the large city systems. It assumed that its function should be the construction of a program that would serve not only the schools of Chicago, but that would be adapted for the use of schools in rural sections within the entire range of WMAQ's power. The

pioneer work of WMAQ and other stations throughout the country had proved unmistakably the value of radio lessons as an aid to the routine work of the teacher.

The reception of school radio lessons prior to 1930 had led this program committee to a definite decision that radio does lengthen the personality and power of the master teachers, and the efforts of Miss Waller had already demonstrated the possibility of securing the service of master radio teachers. It should be emphasized that Mr. Drucek and his program committee began their work with the firm conviction that the radio lessons must approach, as closely as possible, the classroom situation and that reception of the radio lessons should occur in the classroom under ideal lesson conditions rather than that the programs should be designed for auditorium reception.

The committee believed that opportunity should be provided for the classroom teacher to make preparation for the radio lesson, that the radio lesson itself should be presented in the same spirit that the radio teacher would assume if he were presenting the lesson to a single group of pupils and that some follow-up work should be carried on in connection with the radio lessons.

Radio Teachers Are Outstanding

The foregoing are perhaps the most outstanding of the ideas which the committee bore in mind as it began its work. Thus, the committee started a search for appropriate teachers to present radio lessons. The directory of broadcasters reveals the presence of regular classroom teachers, principals, two members of the Chicago Normal College faculty and several persons who are not connected with the Chicago school system in any other capacity than as radio teachers, but who are so outstanding in their particular fields of endeavor that they are able to render highly efficient radio service. It is apparent that those radio teachers who are members of the Chicago school system may be expected to conduct the radio lessons as a part of their ordinary duties, but that some compensation must be provided for the radio teachers who are obtained elsewhere. This problem has been met without cost to the public school system through the kindness and generosity of various commercial agencies. A manufacturer of maps, globes and charts is sponsoring the geography lessons. This manufacturer pays the salary of the teacher and provides outlines and other supplementary material without charge to the schools that request the service. A publisher of encyclopedic material is performing a similar service in providing excellent supplementary booklets to be used in conjunction with the lessons in science and nature study.

These facts are mentioned here to indicate the appeal radio instruction has made in the minds of concerns whose interests are largely educational, and to offer a suggestion to other cities as to how one of the several problems in educational radio may be met.

Wide Range of Subjects Offered

The Chicago radio program as it operates to-day comprises two daily lessons of twenty minutes each. The range of subjects has been made as great as efficient presentation will permit. A glance at the accompanying schematic diagram will reveal the typical monthly schedule. It will be observed that the column at the extreme left shows the four weeks of the month with the daily broadcasts listed in vertical columns. Those subjects receiving greatest attention are those that lend themselves best to radio presentation. It will be seen that music, geography, science, literature, history and art predominate. Some experimental work is also being done in the presentation of other subjects in the hope that these may later be elaborated on a wider scale. In this group are stories in mathematics, character education, health and current events. It will also be seen that grades one to nine are represented in the radio program. No effort has been made to serve the senior high school this year.

It is interesting to know that during the years when WMAQ was carrying its radio program entirely upon its own responsibility, the range of reception grew far beyond the borders of Chicago. Last year in addition to the local schools, more than 800 other schools, scattered throughout half a dozen states, were making regular use of these broadcasts. Thus it appears that to-day the Chicago radio program is far more than a service to its own schools.

WMAQ's Contribution

Time on the air costs the Chicago school system nothing. The *Chicago Daily News* station, WMAQ, makes this contribution as a worthy service to the pupils who live within its area. Incidentally, it may be recorded that the schools of the Middle West owe a tremendous debt of gratitude for the pioneer work done by Miss Waller and WMAQ in the field of public school broadcasts. The wish that Chicagoans extend to the whole country is that eventually every city in America will enjoy as Chicago to-day enjoys the happy combination of a great radio station, alert to the value of educational broadcasting, together with a school administration wise enough and energetic enough to take advantage of this important educational tool.

The Rural School and Its Activity Program

BY LOIS COFFEY MOSSMAN, PH.D., ASSISTANT PROFESSOR OF EDUCATION, TEACHERS COLLEGE, COLUMBIA UNIVERSITY

This department of rural education is conducted by Helen Heffernan, chief division of rural education, state department of education for California, Sacramento, and president, department of rural education, National Education Association

WHEREVER there are children there is activity. Wherever there is group living activity is going on and learning of some sort is taking place. Living means activity. Activity means learning.

In the traditional school the teacher's effort was directed toward inhibiting as many of the children's activities as she could. As a matter of caution or for the sake of keeping a semblance of peace the pupils' enterprises, especially those of the older boys, retreated behind the geography texts. The teacher did not stop them although she did somewhat modify their outward manifestation. And she often caused a division of forces and a conflict of effort on the part of the children and herself.

The new school openly avows that it believes in children and in their activities, that these activities are closely related to worthy learning and that the new school will ally its efforts with those of the children. It believes that by supplying proper guidance for the children's efforts better learning will result in terms of knowledge, skills, habits, attitudes and appreciations that relate to life, life that is full and worthy. The new school thus attempts to make children's activities contributory to a genuine educational program.

/, Room Arrangement Highly Important

What are the conditions that encourage such a program of learning through living? Does this theory mean a peculiar kind of equipment? Does it mean expensive equipment and a wealth of supplies? Does it mean that desks shall be movable? Does it mean that there is never to be found quiet study but instead a state of continuous excitement and commotion? There is nothing innately wrong in a child's working at a desk that is fastened to the floor, providing that arrangement best furthers what he should be doing, but if a room is

filled with such equipment there is obviously a limit to the kinds of things children can do in that room. Is the new school's point of view a condemnation of fixed furniture or is it a plea for freedom and the possibility of greater accomplishment?

✓ Children Learn by Doing

As we think of the rural schools scattered over the United States and recall the factors that inevitably condition such schools in California, Kansas, New Jersey and Texas, we cannot sponsor a theory of activity work that is dependent upon kinds of building, desks, equipment, school grounds and supplies. The activity theory maintains that the child learns something whenever he does anything. He learns what he does. Doing involves responding to situations that stimulate the doing. This response brings with it an increased or decreased tendency to do likewise in a similar situation. This increase or decrease in the tendency to do constitutes the learning or change that takes place in the child. These changes in tendency to do will obviously vary according to the things he does. And what he does varies to some degree according to what his environment permits and suggests. There is not much tendency therefore toward learning to skate on ice in Arizona or in Texas.

Furthermore, we must remember that psychologists are telling us that what a child tends to do at a given time is not wholly dependent upon what his environment suggests for his nature is selective in its response to the things about him. This selectivity is due in part to what the child has previously done. In other words, children's tendencies to do are influenced by what they have done and what they have done is conditioned by the places where they have been. If we are considering an activity program possible for all rural schools we cannot provide for it by making lists of equipment

and supplies or by drawing plans for the specific kind of building needed.

What, then, shall guide us in the attempt to make provision for an activity program? What conditions are essential in all rural schools if we are to attempt to guide children's learning through what they do?

Such an activity program really means setting up a method of living and doing things together. If such living and doing together are worthy there must be some recognized and accepted objectives. No group action is of much worth if it lacks a purpose recognized by those participating. In order to do together the members must all try to accomplish the same ends. This means that there must be a definite effort on the part of the school to recognize and define what it is trying to accomplish.

At present many schools fail in this matter. Sometimes teachers tell the children what is to be done but such statements are not made in terms of children's living. And there are varying degrees of acceptance of these statements. They do not come out of the children's experiences. They do not necessarily fit into what the children see as really worth doing.

Seizing Opportunities

Such recognition and statement by the school of its objectives do not come instantly. Not on the first day of school, perhaps, nor during the first week can a group of children recognize some of the things they all really want to accomplish. Such recognition is gradual. As they do some things together and find worth in so doing they glimpse possibilities of other worth while things. Success in one undertaking gives courage and daring in attempting more difficult ones. In fact it seems evident that so long as a group lives and works together its objectives are never completely stated. New possibilities continuously appear.

The teacher of a school should keep in mind this first essential—the continuous process of the group's recognizing and attempting to state its objectives. No school can be successful in its attempt to carry on an activity program if it fails to develop this essential in group doing and learning.

A method of group learning through living and doing together involves a second significant element essential in the progress of the work—the development and use of group consciousness. A degree of group consciousness is present in every school. Such consciousness inevitably develops. The point is that teachers have assumed that it was to be combated, that it was the foe of learning. Some of us can remember going to schools where

communication with one's neighbor was condemned. To write a note or to whisper was a sin. The good boy or girl was one who never by word, look or gesture indicated that he knew there was another child in the room. And yet the same school asserted that it was teaching children to write, to speak and to read. Perforce, to do so it must condemn the doing of the very thing it was teaching.

Group Consciousness Essential

As children do things together they learn to know their combined strength, their abilities, their individual likes and dislikes, their ambitions. Such group consciousness can, if capitalized, become a tremendous force in carrying through attempted enterprises and in seeking possibilities for new, more worthy, more challenging undertakings. Group consciousness may be a source of dissipation of energy or if rightly guided it may be the source of genuine effort in commendable group action.

We conclude then that no teacher who would work by an activity program can dare neglect this second essential factor—the development and use of group consciousness.

This implies the third essential factor in successful group living and learning. This is leadership. No group can work together successfully without it. Unity of action implies it. Achievement and progress demand it. There must be one to lead the way.

This one is obviously the teacher. He is the one whom society entrusts with the education of its children. He is the one delegated by society to carry this responsibility. If competent, he is one whom the children trust and respect because of his ability to lead them.

Many Teachers Lack Initiative

All this means that the teacher must have vision. He must see the meaning of what the children are doing—meaning in terms of the learning that is taking place. The difficulty in many places where an activity program is being attempted is that the teachers themselves lack vision. They do not see the significance of children's interests and tendencies. They do not see the relation between the things children tend to do and what is accepted as worthy learning. They do not understand that learning is linked up with doing. They do not see the subject matter of the school as an integral part of living richly and fully.

One reason for this state of affairs is that many teachers do not know richness and fullness of living. The obvious, the commonplace, are but obvious and commonplace to them. They have little or no meaning. The limestone cliff is but so much

limestone fraught with the possibility of becoming, if crushed, a troublesome white dust or capable, if it comes in contact with running water, of making that water disagreeably hard. The flower by the roadside, the strata of sandstone, the magazine delivered by the postman, the fresh loaf of bread from the oven, convey no message about the wonder of their existence. These are teachers who cannot read "the books in running brooks" nor do they understand anything of what the "flower in the crannied wall" is telling them. Such people are obviously unable to lead children in their tendencies to wade in the brooks, pick the flowers and dig in the sand so that such activities may be but the beginnings of genuine adventures into the world of ideas and meanings.

Leading the Way

A teacher of long ago said, "I came that ye might have life and that ye might have it more abundantly." Abundant life involves meanings, significance, understanding in everything one does. Every teacher who comes into children's lives should be so filled with the meaning involved in the details of daily living that he can lead boys and girls into fullness of life. President Butler of Columbia in a recent commencement address challenged his hearers in his initial sentence by asserting that "there are comparatively few men and women alive in the world, although there are hundreds of millions of living human beings." A teacher with vision sees the distinction here made and looks upon her work as an opportunity to bring boys and girls into fullness of life through helping them to develop the things that at the time attract and satisfy into things of far greater challenge and meaning.

This leadership implies a teacher who knows the ordinary tendencies of boys and girls, who sees the relation of these tendencies to worthy ideas, who knows the wonders of the commonplace world where the boys and girls live, who can translate commonplaces into adventures in learning, one who himself lives much and deeply and who can show others the ways into such living and understanding—in fact, one who has vision of the possibilities for boys and girls to enter into life and can lead the way. Such leadership, with vision, is the third essential in attempting to formulate an activity program.

A fourth essential in such a program is a working base or group home. It has been said that schools have always had this. It is granted that there have been the schoolroom, the schoolhouse. But they have not always been a home, a working, living place. The penates of childhood have not always been set up there.

A home does not necessarily need to be expensive or elaborate. There are many reasons why it should not be so. To anticipate and provide in advance for all the possible needs and comforts of children robs them of the adventure involved in being confronted with a genuine need and meeting it by their own efforts.

A member of a school board recently visited a classroom where he found the children using orange box chairs they had made for their library corner. When talking with the supervisor later he mentioned these chairs and added that they would order some "nice" chairs, that they had plenty of money and did not want their children sitting on orange boxes.

The important thing is to see that this home base is the children's to use, a place where they can live and do. We need, then, as a fourth essential, schoolrooms that are truly places where children can live and learn.

This at once suggests a fifth essential—freedom to live and do. This means freedom to use the schoolroom for activities that are challenging. There have been schoolrooms where children were not permitted to move the pieces of furniture from the fixed stations and where to suggest using India ink to draw a floor map of the world that could be used in the study of the group would be regarded as a desecration of property.

What Is Freedom?

This fifth essential also means freedom to deviate from the established routine if such deviation gives promise of better returns in children's learning. It means freedom to bring in and use books and material other than the adopted texts. It means possibility of deviation from any prescribed sequence in work. It means freedom to go out from the home base to the place where first-hand data can be secured if such data are really valuable. A school was recently found where the children were never free from established régime from morning to night. The recess consisted of a period in which the children played dictated games in the classroom. This was the rule although the school grounds were attractive and the neighboring mountains and valleys were full of legend, history and physiographic stories. It was in this school that a geography lesson was heard where only the textbook material on glaciers was recited although the environment contained many evidences of the visit of the glacier and a splendid glacial boulder was to be seen on the school ground.

We cannot talk of an activity program and at the same time shape the school work to fit a series of prescriptions and prohibitions. Some of the European countries have realized this better than

we have and are now including school excursions as a fundamental part of learning. Learning implies developing habits, attitudes, knowledge and appreciation relative to the things that make up life's experiences. Such learning involves living and doing in the midst of life's elements. This implies the necessity of freedom to do.

Rural School Is a Rich Teaching Field

All these five essentials imply and involve the sixth inclusive one: An activity program means a program of living and doing worth while and challenging things which in turn call for more worthy living and doing. The space allotted to this discussion does not permit the elaboration of what these worthy activities may be. They are of life and they belong to childhood. They are related to the valuable learning that interprets life and gives it effectiveness.

Provision for an activity program may then be summarized in this sixth essential—we must see that boys and girls live and learn in a group life where they may carry through to greater significance the things that at the time seem challenging and that give promise of greater worth.

The rural school has in it great possibilities for such work. The environment is varied and is rich for school purposes. It is simpler than the environment of the city school, in that its processes are less complicated with numbers. Social processes of the community can be comprehended because they can be contemplated as a whole. Family life still exists. Domestic activities are still carried on as a part of the child's experience. The physical environment has not as a rule been despoiled by man's steam shovel and concreting tendencies. Brooks may still be found. Fruit trees yet produce fruit. Pastures, meadows and fields exist.

Then, too, heroes and history have local significance. The past may be cherished and is therefore not so remote.

Developing Rural Learning

The teachers of rural schools, it seems, have the finest opportunity to develop a worthy activity program because the child's world in a rural community can have a unity of setting that makes possible the development of real learning through living. Provision for such work calls for (1) the development by the group of recognized and accepted objectives, (2) the development and use of a fine group consciousness, (3) wise leadership guided by a vision of possibilities in teaching boys and girls, (4) a home base for living and learning together, (5) freedom to live and learn, and (6) a genuine program of living and doing worth while and challenging things.

How Iowa Regulates Its School Transportation

The following notice appeared in the September issue of the *News Bulletin* of the Iowa Department of Public Instruction:

"Attention of school boards is again called to the school bus law passed by the forty-third general assembly. This law forbids boards to purchase or hire school busses which do not have both front and rear entrances. Each school bus must be equipped with a sign 'School Bus' in letters four inches high on both the front and rear of the bus. The safety of school children can be better safeguarded if pupils are received and discharged from the front door of the school bus. If this door is on the right side of the bus, children are received and discharged away from the traffic and the danger from accidents at the hands of passing motorists who fail to obey the law is minimized. The back door should be under the control of the driver.

Teachers Should Supervise Loading of Busses

"All school busses should be well lighted and well ventilated. A comfortable seat should be furnished for each child transported in the bus. The driver should be a person with high moral standards and sound judgment. The pupils should understand that his reasonable requests are to be complied with, and a failure to do so will meet with merited punishment. School busses should run on regular schedule. Regular reports should be made to the superintendent of schools. No child should be picked up before 7:45 a.m. and no bus should arrive at the schoolhouse before 8:30 a.m. All teachers should be at the schoolhouse by half past eight in the morning and should not leave the building before half past four in the afternoon so they can help with the loading and unloading of pupils.

"Several minor but not serious accidents occurred to children being transported to and from school in school busses last year. Every precaution should be taken by school boards to reduce the number of even minor accidents. The Macy Campbell Club of Iowa State Teachers College has made a study of accidents to school children last year and is convinced that a radical change in the 'School Bus' signs is necessary because passing motorists are unable to see the present sign. Sometimes owners of cars used to transport children to and from school do not remove the signs when their cars are used for private business. When automobiles are used for school busses, the signs should be removed when such cars are used for private business."

Building With a View to the Future

BY

CHESTER M. ROUTLEDGE

ROUTLEDGE AND HERTZ,

ARCHITECTS AND ENGINEERS,

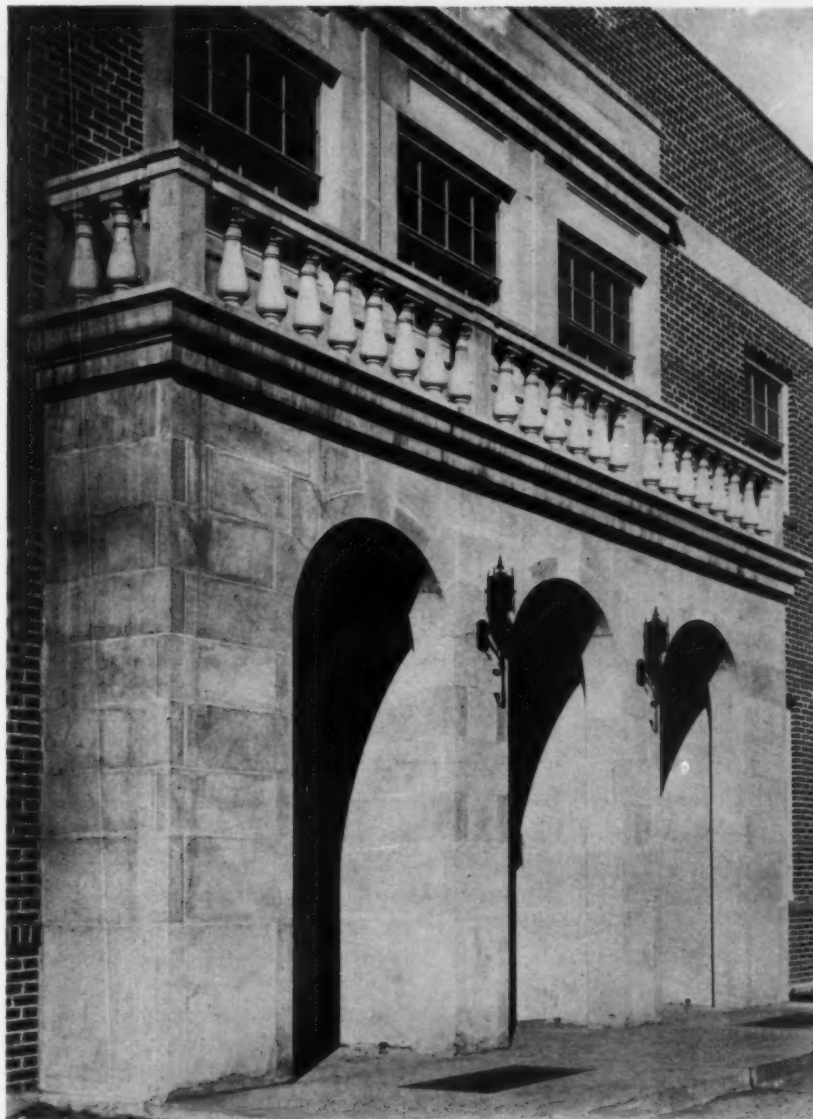
HUTCHINSON, KAN.

IN designing the new grade and high school building for the city of Osborne, Kan., it was the aim of the school authorities and the architects to design a complete building that would eventually house the grade school, the junior high school as well as the high school.

Osborne is a town of about two thousand inhabitants and is the county seat of Osborne County. The approximate enrollment at the beginning of school this fall was 250 in the lower grades, 115 in the junior high school and 250 in the senior high school.

The facilities of the school were found to be inadequate and it was necessary to replace some of the buildings. Additional space was urgently required for an auditorium and a gymnasium as no such facilities were provided in the old group of buildings. Because of legal limits for a bond issue it was found impossible all at one time completely to discard the old buildings and build the entire school. It was therefore decided to make the best possible use of the old buildings on the site and to erect the first unit of the new building, wings to be added later as the old buildings outgrew their usefulness.

A brick and frame grade school building occu-



pied the center of the block of ground of the school site. It was decided to abandon this building first as it was the oldest of the group and was antiquated in design and in lighting, heating and ventilating arrangements.

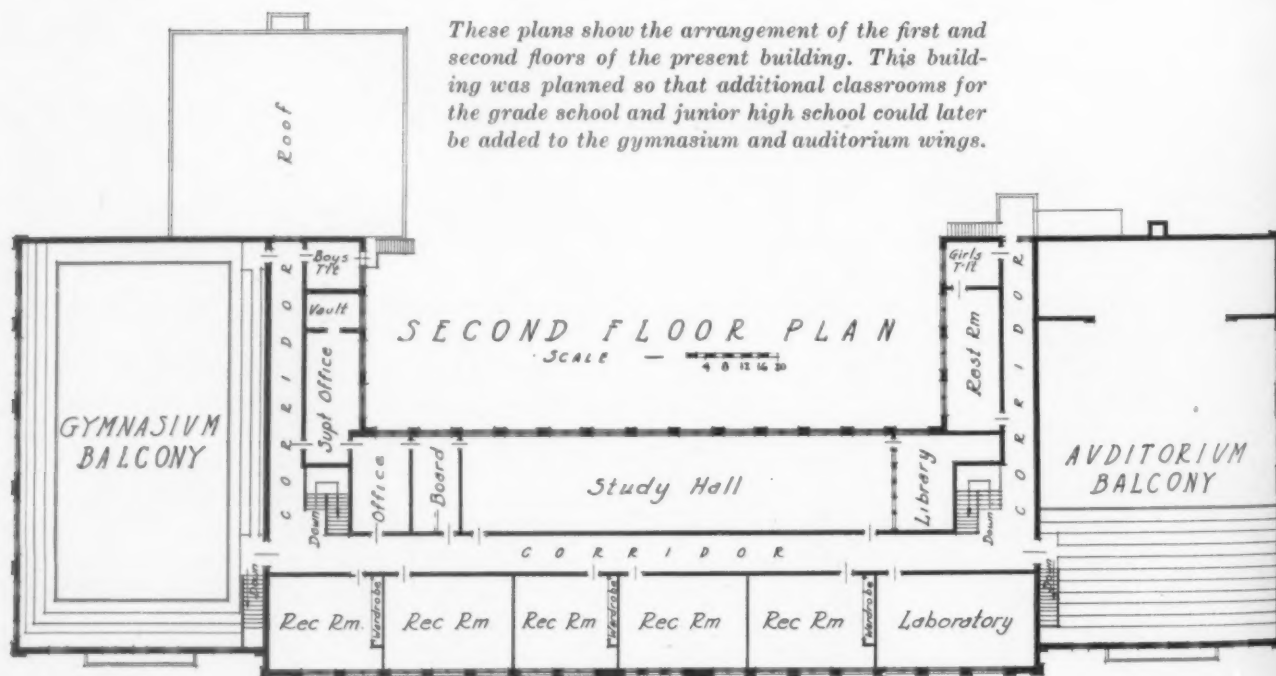
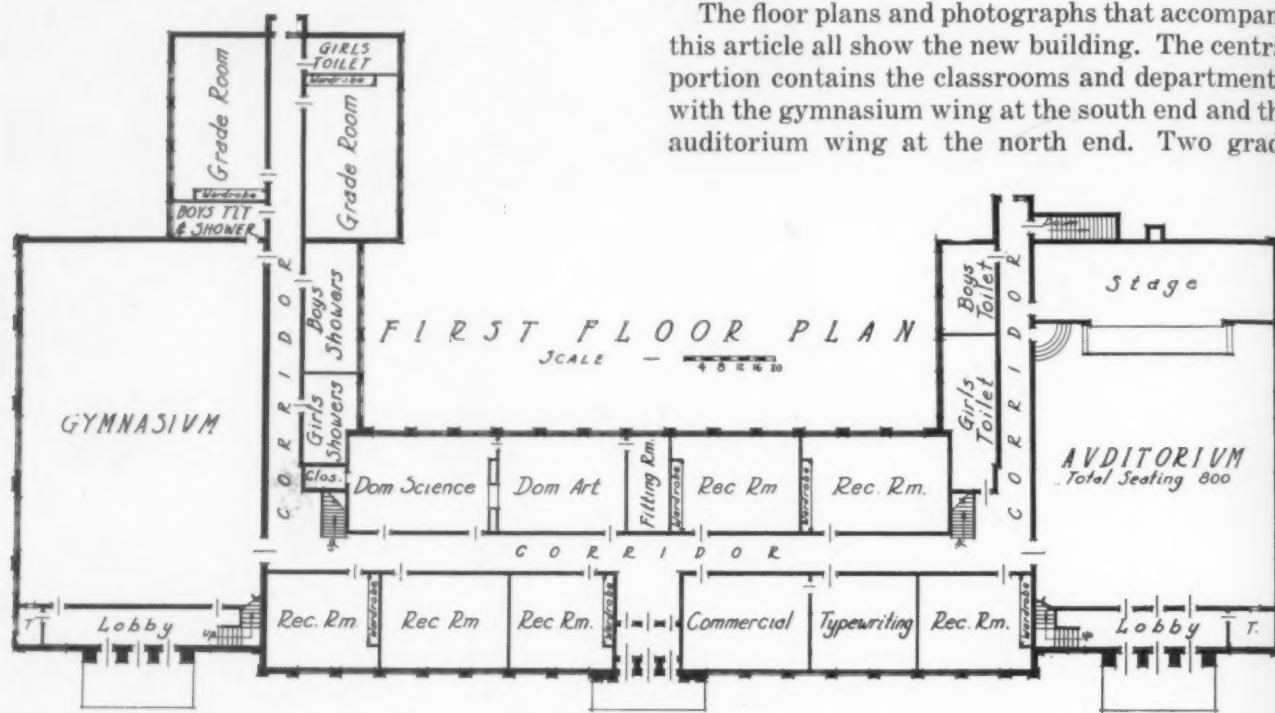
The next oldest building was the high school. This was only about twenty years old but it had been poorly constructed of brick and frame and the upper portions of the three-story walls were cracked and out of plumb. While the new building was under construction this old high school building was remodeled for use as a grade school for the next few years or until the grade school wing of the new building could be financed and completed.

Remodeling work consisted of removing the top story, thus relieving the weight on the old walls and footings. A new flat roof was built and necessary repairs were made, such as replastering ceilings; laying new flooring; arranging for coat rooms, and adding slate blackboards. The heating

plant was converted from a one-pipe gravity steam plant to a vacuum-vapor system with valves and return piping. This was connected to the heating system designed for the new building which was operated by a vacuum pump. The cost of this work was approximately six thousand dollars and the

building on a corner a block away from the new building was also renovated. The heating system was remodeled to conform to that in the new building and was connected with the central heating plant. The old group of buildings also included a manual training shop which was adequate for present use.

The floor plans and photographs that accompany this article all show the new building. The central portion contains the classrooms and departments, with the gymnasium wing at the south end and the auditorium wing at the north end. Two grade



These plans show the arrangement of the first and second floors of the present building. This building was planned so that additional classrooms for the grade school and junior high school could later be added to the gymnasium and auditorium wings.

building as remodeled provides seven grade classrooms with toilets and office space. All walls and ceilings in this building were treated with flat wall paint.

A small separate kindergarten and primary

classrooms with separate toilet rooms were built at the rear of the gymnasium wing, as the first unit of what is eventually intended as a complete grade school wing of the building. For the present these two rooms and some of the classrooms in



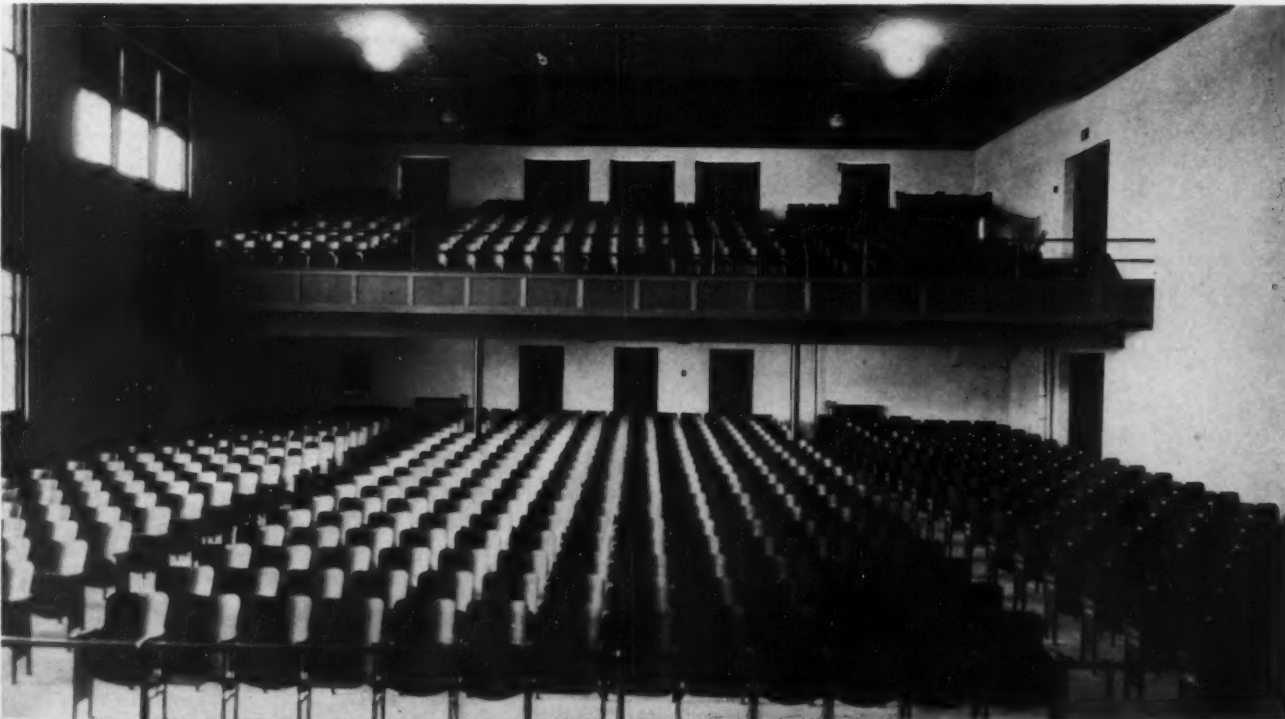
The exterior of the building is medium brown brick with Carthage marble trim.

the main part of the building will house the junior high school pupils. A similar wing is planned for the rear of the auditorium wing to house the shops and junior high school, so that finally all the old buildings can be abandoned and the site cleared with the exception of the kindergarten-primary building.

The new building is of two stories and is of brick and stone with reenforced concrete floors and frame roof. The face brick is a medium brown brick with white mortar joint flush with the face of the brick. The stone trim is Carthage marble. All corridor flooring is of terrazzo. Beech wood flooring is laid over concrete slabs in the gymnasium, in the classrooms and on the auditorium stage. The interior finish is pine with birch slab doors. All entrance doors are metal. Genuine

slate is used for blackboards. The ceilings in the building are of insulating board, cut, grooved and nailed to furring strips. In the corridors, toilets and shower rooms the ceilings are plastered. For lockers there are classroom wardrobes with multiple action doors and a separate door for the teacher's closet.

The heating system is vacuum-vapor steam from a separate central heating plant which is also connected with the other buildings on the site. The classrooms are heated and ventilated by unit ventilating machines which introduce fresh outside air to the classrooms. The foul air is taken out through the wardrobes to the corridors and out through the roof by two large ventilators over the main stairways. Certain rooms, such as the domestic science department, the auditorium and



The auditorium, with a seating capacity of 800, is well equipped for all kinds of school and civic entertainments.

the gymnasium, have separate ventilating stacks leading through the roof. The plumbing fixtures are of vitreous china. The fixtures in the toilet rooms are arranged with utility spaces for all roughing-in piping and are provided with separate vent stacks. A thermostatic temperature control controls the heating and ventilating system.

A complete electrical system was installed with power and light wiring. All electrical fixtures and lamps and a clock and program system with an intercommunicating telephone system for the new building extending to the other buildings on the site were provided for in the electrical contract.

Up-to-Date Auditorium a Feature

The auditorium has a seating capacity of 800. The floor is sloped toward the stage. The auditorium balcony is reached by a separate stairway from the front lobby and also opens into the second floor corridor. The stage is equipped with all essential scenery and fixtures. The stage and auditorium are in almost constant use during school hours for music instruction and are frequently used for school and community activities in the evening. Dressing room space is provided below the stage and the stage also opens on the corridor near a rear entrance so that for large affairs those using the stage may pass to other parts of the building without coming into view of the audience. The acoustical properties of the room are exceptionally good because of the ceiling treatment. The auditorium has a separate entrance with a lobby and ticket office.

The gymnasium occupies the wing to the south and also has separate entrances, a lobby and stairways so that it may be used at night as a separate unit. The main floor is 80 by 54 feet and provides a basket ball court 40 by 72 feet. Movable bleachers are used for the lower floor under the side balconies. The balconies above are provided with three rows of plank seats and the balcony is extended over the entrance lobby at the front. The locker and shower rooms for boys and girls are placed across the corridor and to the rear.

The cost of the new building alone, not including any of the remodeling on the other buildings, was as follows:

General contract	\$107,490.00
Heating and plumbing	28,984.31
Electric wiring	5,535.00
<hr/>	
Total cost	\$142,009.31
Cubic contents	605,500 cubic feet
Cost per cubic foot	0.234+ cents

Contracts were let March 15, 1929, and the final payment was made and the building accepted on November 2, 1929.

Improving the Work of the One-Room Teacher

M. S. Pittman, Michigan State Normal College, has an article in a recent issue of the *American Schoolmaster* on the constructive improvement of the work done in the one-room teacher situation. Attention is called to the seventh point in his conclusions:

1. The ambitious teacher is likely to become convinced of the impossibilities of doing herself credit while working on this plan.
2. She becomes discouraged because she cannot do anything as well as she would like to do it.
3. She becomes convinced that the children in her school are not getting what they want.
4. She is likely to become nervously frayed and irritable.
5. She is likely to become content with superficial knowledge.
6. She is likely to wish to do some other type of teaching and hence move at the first promising opportunity.
7. We must so change the teaching problem of the rural teacher that she will have a more narrow content to teach or else we must devise procedures that will make it possible for the teacher to deal with the children according to their individual needs without increasing the load and at the same time materially diminish the nervous strain of the teacher.

Washington Schoolboy Patrol Reduces Accidents

By telling their schoolmates when it is safe to cross busy thoroughfares near schools, 2,000 members of the schoolboy patrol organized in Washington, D. C., under the auspices of the American Automobile Association have been instrumental in bringing about a reduction of 33 per cent in the fatal accidents to children of school age in Washington.

The safety division of the District of Columbia division of the A. A. A. reports there are now 158 patrols in the city, with an average of one patrolman to every forty children. In 1926, when the patrols were first organized, it is said, there were fifteen fatal accidents to children of school age. In 1929 the number was ten, a reduction of 33 per cent, according to a statement in the report.

On drab days the boys on patrol wear brilliant yellow ponchos and hats furnished by the A. A. A. that they may be easily spotted by motorists. On other days they are identified by white "Sam Brown" belts. They take their posts before and after school and at the noontime recess.

Methods as Aids to Realizing the School Policy

Research has so economized school time that there is no excuse valid for side-stepping the main duty—political education

BY WILLIAM McANDREW

THE NATION'S SCHOOLS has in three numbers assembled demands of laymen and educators for a school policy effectively realizing the social civic political intent of the nation.

The last word was from a taxpayers' association. This California organization remarks: "We can't afford to leave the schools in the hands of the educational philosopher. They belong to the people. They are for civic preservation and betterment. Their output can be measured; it must be measured; it will be measured." The temperate Briggs even suggests that it would be stimulating to put you, the superintendent, on the stand, and require you to give an account of your stewardship: "What are the steps taken in your organization to prepare the children for an adherence to the duties of honest government, of knowledge of the doings of the people's representatives, of participation in the political work of the community? What are the steps taken by you and your teachers toward cultivating your expertness in political knowledge and duty? What are the results of your civic teaching?"

If the civic examination of the superintendent does not show him effective in his main duty, political education, let him be considered malfeasant and let him be dispensed with. That's what they do with generals. Sometimes they shoot 'em.

Time Gained for Civic Training

If you have read the conclusions of those who discuss American education, observations I have quoted in large amounts in three attempts to outline public school policy, you recognize that this "main duty" is the putting of political preparation into the position of most importance in the school procedure. I should encourage you to review the progress that has been made in your day in the manner and method of doing things in school so as to equip the superintendent of teaching with knowledge of surer procedures than ever he has had before.

The teaching of reading has become a science; that is, the process has been improved by experiment and proof until proper training in it can be

accurately measured and compared with standards that you, if the schoolboard doesn't balk you, can require of every teacher. Judd and Gray and other careful researchers have, for you, put reading where a mastery in two years is now equivalent to that of five years of work when I was a pupil in a common school. Early literacy is now possible for all normal children. But if you were put on the stand by Briggs's district attorney you could not get away by the commendable showing that your school system teaches all the children to read well in as little time as is indicated by the standard.

What of it? The smuttiest books surreptitiously sold are perused by those who have the ability to get ideas from print. Benedict Arnold, Aaron Burr, William M. Tweed, Secretary Belknap, Matt Quay, Tom Platt, Dick Croker, were tiptop readers. The *American Mercury* circulates among high-powered literates. Nor could you get immunity if you showed that your pupils have a high percentage of preference for Shakespeare, Milton and Addison. No fundamental sanction for the establishment of tax supported public schools says anything about reading skill or literary taste or grammar or rhetoric or spelling or arithmetic or drawing or geography. But the origin of the American school system is inextricably a proposal to secure and preserve good government, more perfect union, by means of educating the people for this purpose. What, therefore, you have secured in school time by the reduction of the period of securing literacy must be devoted to the main business.

New Methods Must Lead Somewhere

Another big saving of effort and money comes in the form of the junior high school organization. But it is more easy to work out the details of its organization and operation as outlined by Professor Judd than to keep alive its civic and economic purpose, which he considers, and you know, to be of the greater importance. When I see his and Mr. Weets's and Mr. Briggs's and Miss McGregor's clear-cut demonstrations of the structure and rea-

sons for this type of school, I am in danger of thinking I could set one up and leave it to run of itself. Then Boyd Bode gets after me again, saying, "The tragic quality of new devices is that you forget the great idea and let it be strangled by the systems designed to enable you to realize it."

The same is true of the platoon plan, one of the notable inventions of our day for saving money and improving teaching. William Wirt, Charles Spain, the Portland City Club and all whose writings upon it are based on a scientific appraisal, insist that it must be used with conscious direction toward the educational ends out of which it has grown. But it can degenerate into mere machinery. We are too prone, remarks Frank Blair, to adopt new styles as if they were neckties such as smart people are wearing. So we introduce salesmanship into our schools to teach how to part people from their dollars and then set up a course in thrift to prevent them from getting loose. Visual instruction and radio are temptations into new fields and are wasters of public funds unless they are intentionally and skillfully made to make, in 1940, a better governed city than Chicago or Detroit or your town is now.

Time Gained by Knowing the Children

Bird Baldwin, William Burnham, and M. V. O'Shea are helping you to stop wandering in the mists of uncertainty regarding the way children learn. These authors enable you to put yourself on the straight road and to save much time and effort in doing your big civic job. I happen to be closer to the last named than to the work of the other two. That is why as editor of this magazine he drafted me for this series. He turned child study in his classes from a fashionable fad to a productive science. Nine books and unnumbered articles on it are ours at the cost of walking to the public library. He tells you the lawyer keeps on studying law, the physician is always learning of the action of the human body and that you must insist that your teachers drop the old-wives'-tale stuff about children and learn the things that are so.

I put him here among the encouragements because he says that teachers are doing this more than ever before. "We are entering a new era of knowledge of children. Results of thousands of experiments are available. A child is the most complex entity of all we have to do with, even more so than an adult. But children can now be measured mentally and bodily. The old notion that their earlier years matter little is utterly exploded. Probably they are the most important times of life. The foundations of democracy must be laid in them. To avoid the teaching of civics until the

senior year of the high school is reprehensible folly. To let children grow up in a school atmosphere with rules made wholly by adults engenders a conflict with law and order and tends to produce deplorable lawlessness in after life. The child's inner urge is social and he is easily persuaded toward civic good."

I do not find O'Shea, with all his sympathy for childhood, taking the spine stiffening quality out of school. The men of to-morrow who are to tackle the foes of democracy now in the saddle must have the nerve, courage, mental stamina and endurance necessary for an obstinate struggle. I find O'Shea, like Charles Judd, Ross Finney, Harold Rugg, Hughes Mearns and Otis Caldwell, recognized progressives, aware that drill in drill subjects, spontaneity in creative work and obedience where right living demands it are absolutely requisite. The call of some wild and glad educators to give the children freedom galore can easily lure you off the main road and into the same Slough of Despond that Draper reached by the traditional school highway, to the fear that "the lives of the children are being wasted." You can't tell me that undirected child nature leads to perfection. I know what I would be if I hadn't been made to behave. You can picture what you would have been.

The projecteers can divert you also. If they mean centering a lesson on something useful to society and sticking to it long enough to get a worth while result, we're for 'em, aren't we? But if their disciples continue in any considerable numbers to advocate mere selfish amusement in making toy houses or any plaything for the maker, it is time for you to remind them that the reason for taxing bachelors to pay for this is too flabby to stand up.

Let's continue our review of the work of our men and women who are making approach to the big policy more easy.

New Stress on Mastery

Get light from an amazing illumination on our obscure imaginings of the effects of failure and success. Lois Meek merits an explorer's medal for her charting this region. Otis Caldwell and Hughes Mearns deserve wreaths also. Many of us, according somewhat to the condition of our livers, have had a glimmering conviction that effort not reaching a satisfaction benumbs the mental powers, whereas success generates new energy and leads to other triumphs. Goddard, in Vineland, proved this true of the feeble-minded. Seven teachers of the Washington Irving High School, New York City, printed in the *University of Chicago School Review*, twenty years ago, a creed that aroused indignant protest. It was the proposition that the

school could and should assume responsibility for the success of every child. Failure should be charged against the teacher, not against the pupil or the parent. A philanthropist, Opdyke, had William H. Allen send 20,000 copies to American high schools. Winship called it, "A revelation of light." What these teachers argued from their inner consciousness Lois Meek has independently put on firmer foundation by case studies.

Eliminating the "Failure Complex"

Failures in school do not prove to be due to low intelligence quotations. Bright children, attentive and willing, lose their grip. Investigation finds a previous unrectified confusion at some stage of progress. A "failure complex" spreads through the subconscious. I had one of these early in the study of algebra. Luckily for me my wise or affectionate mother—I think she was both—got me into another school. Along in about the second book of Caesar's Commentaries I recovered from the inferiority phantasm. George Carman, our teacher, now head of the Lewis Institute, Chicago, would permit none of us to fail. Abraham Flexner made a specialty of the lame ducks in the Louisville High School and got them to get themselves through. William Latimer of New Paltz, N. Y., George Shutts of Whitewater, Wis., both mathematics teachers, had reputations of leading classes through the course with 100 per cent succeeding. I have interviewed each of these three men. Their independent, original procedures had identical elements: Begin with the understanding that every person owes it to the public that pays for the schooling that he will not disappoint expectation. Success is a habit. To get a habit you must not have deviations. Nurse each failure into a success.

This is contrary to the policy of school in my youth. The teacher's business was to designate the day's portion of the book and to require you to learn it. To-morrow she would hear you reproduce that thirtieth portion required of you when your turn came. She would mark your score in a book. It was not uncommon for 40 per cent of the children to fail of promotion. The high schools cheerfully espoused without any Scopes' trial the doctrine of the survival of the fittest. The rule was "sink or swim." The high school was an institution not a service, and centered on its course of study. The great Maxwell, not yet ten years dead, insisted that altogether too many were in his New York high schools who shouldn't be there at all.

William Lewis, organizing the William Penn High School, Philadelphia, wrote his book, "Democracy's High School," to demonstrate the only honest attitude for high schools—that of assuming the responsibility of all youth over fourteen years of

age, clean and dirty, well mannered and insolent, bright and stupid, and of adjusting civic instruction to the capacity of each. These people have made it easier for you to realize your high obligation. They have made success one of the policies of school management, a policy that the public, if we are to believe Thomas Briggs, Charles Prosser and the California Taxpayers' Association, will more and more demand.

A policy maker whose work along this line is facilitating your ascent to the platform the public school founders built for you is Henry Morrison, University of Chicago. His book, "Teaching in the Secondary School," should be renamed "Training Mastery," for it is replete with principles applicable to every grade. Morrison, by daily work in an educational laboratory, has analyzed success into its elements and constructed a procedure that makes the five formal steps of your normal school days look like a farm soap kettle alongside a colossal soap factory. With Mary Kelty giving you a manual for this mastery training in history and civics, with Hamilton applying the procedure to all grades of the public schools of Oak Park, you don't need to grope around much, wasting time looking for a method that is less of a guess than is the deadening mummery Abbé Dimnet finds so prevalent in schools that give us a less intelligent public than America had in 1850. Morrison's creation, too, will become, in the hands of the mechanical, as fatuous as the concentration, correlation and other schemes of the previous generation unless it is vitalized by his originating motive: the production of thinkers eager to realize a democracy such as the pioneers saw in their visions.

Passing of the Recitation

Along with the procedure offered by Morrison come the destroyers of the educational fake, the mass recitation. You older fellows recall the rise and fall of Search's Pueblo Plan, Kennedy's Batavia Plan, Shearer's Elizabeth Plan and the Pupil Proctor Plan. They may have fallen apart, but the determination to give each child a chance according to his needs certainly is more active than at any time since the organization of an American school system. Jesse Burke of the San Francisco Normal School ought to have a column on his tomb for slaying that offspring of error and laziness, the Average Child. Washburne of Winnetka, Burke's educational godson, between the times he is entertaining visitors who come to gather reasons for making no changes at home, is writing books that will help you get your schools up from the 50 per cent efficiency which Fred Hunter says most of us have. Miss Parkhurst has done the same for you with her books on the Dalton Plan. It must have

unusual value to spread, as it does, through England, the land of leave-things-be.

Do you know of the latest contributor to productive school time? Edward Maguire, who is principal of a junior high school in New York City operates a program which comes as near to making pupil activity inevitable as any I have seen. His unique little book, "The Group Study Plan," is published by Charles Scribner's Sons. It is full of sound educational philosophy in homely phrases, protesting against the appalling waste of the traditional recitation. Romiet Stevens showed by many measurements the amazing facility of reputed good teachers to talk their classes into mental sloth. Morrison demonstrates the use of appraisal sheets to determine the condition of a class subjected to ordinary recitation methods. But Maguire's program puts the children to study and learning under such a regimen as is almost teacher-proof. Meek, Morrison, Washburne, Parkhurst, Maguire, Thorndike, Bagley, Starch, Colvin, have furnished you with facts about the learning process and with modes of procedure that ensure more than ever before promise of success, when you set your schools whole-heartedly at work on the main proposition to which so much of the ordinary school program is merely secondary.

But of course you need to make an effort to use these discoveries for what, though it really is the primal object of public school, is so neglected that it will seem like a new aim. As Frank Cody remarks: "Education in the spirit of life must give to youth only those experiences that have a direct meaning and use in the world of to-day and tomorrow. It behooves us to interpret the lessons of the race for social, civic and moral betterment. From our teaching must result a new social political order, based on intelligence and reason. We must hold steadfastly to our great spiritual truths and realize them in modern life." Those truths are sanctified to us in the great national document: more perfect union, justice, domestic peace, defense, general not selfish welfare. So, too, exhorts John Withers: "We have gone on as if the makers of America finished it, once for all in 1787. But they laid down general principles. It is the prime duty of the public school to get these lived up to and our actual social and civic life made constantly better."

The Measures

In our time have come the means of knowing how much better our educational output is growing. Burdette Buckingham lists over a thousand books and articles on educational measurements coming out in the past ten years. Every book in this period having to do with teaching or super-

vision devotes many pages to it. You have the means of determining not only what teaching is good but how good it is. The introduction of the permanent graph on the blackboard, its white lines painted as if it were an essential of school furniture, acquaints every roomful with the triumph of every day. It is a backward school indeed that fails to have each pupil plot his own daily success on his personal graph. The aids for getting the good old school subjects well done are so effective as to make Ella Flagg Young's estimate that all the requirements of an eight-year course could be reached, if well taught, in five, seem possible. Then, if you consider Franklin Gidding's observation as to how much of these ought not to be taught at all, you could hardly urge as an excuse for neglecting the teaching of political righteousness that you can't spare time from "regular work."

The Purpose of Education Redefined

Why carry the "miscellaneous" overload of the high school? It hasn't given us the worth of what it costs. Boyd Bode asks why it is we have achieved no preeminence in science, art, literature or diplomacy? Ernest Dimnet thinks it may be because our public school procedure has made us incapable of it. "Our trouble is," says President, now Secretary, Wilbur, "when once we build a machine we like to operate it. We don't ever look our education squarely in the face to find out whether our methods work. But, I say to you, that you, the educator, have got to see that you train men of personality and character to go forward with this political creation of ours or it will go down with a crash."

The forces that can aid you are many. The Parent-Teachers' Association is by this time a national power. The American Association of University Women has more influence than ever. The Boy Scout literature stresses good citizenship more than the programs of educational associations do. Rotary, Kiwanis, Lions, Boosters, Chambers of Commerce, are committed to better citizenship. The idea is in the air. In your town you can get a committee together to work with you on a program of real public school service in the line proposed when public schools were saddled on community earnings instead of on the parents' pocketbooks. I hardly think it possible to return too often to the fact that the best men are aiding us to break away from scholarship and bring the schools to civic service. These pages have emphasized the proposition of the framers of the Declaration, the Constitution, the Ordinance of 1787, and the free school statutes. I have also recorded the views of public men of the present day, of speakers at our national association, of

authors of books on education and of resolutions passed and printed within ten years.

The consensus of all this is that the main policy of American education is not to give the child the intellectual inheritance of the race; not to wipe out illiteracy; not to develop the whole man—head, heart and hand; not a sound mind in a sound body; not to train leaders; not art for art's sake; not to get money into a savings bank; nor to make a seller of goods; nor to fit for vocation; nor to prepare for college; nor to entertain with dancing, drama and athletics; nor to provide for leisure time; nor for worthy home membership nor for any of the scholarmade objectives with which we are sufficiently familiar; but, first to train for politics, which is service to the community as an entity organized as government, for a better union, justice, tranquillity, defense and general welfare and, after that if there is time and money, to provide such other good as is closely related to the main duty. How's that for a long sentence?

I have quoted our eminences to the effect that the schools have not devoted themselves to their obligation, that the present corruption of political life is evidence of this neglect, and that schools are still, as our friend, Bode, says, "Museums of past things classified, labeled and soiled." "Faith has grown weak." Notes Copeland: "Custom has lost its grip on conduct. Disorder reigns in spite of statute law." "The tide of Democracy," says Sisson, "does not flow through the school. The teachers are satisfied with trying to train skills but with no great purpose." "It is notorious that districts in which the largest number of 'the Educated' live the vote is the smallest."

A Welcome Revolution

Now comes Thomas Jefferson Mahan with his "Analysis of Citizenship," Teachers College Press, New York City, concluding after one of those canvasses with which the modern researchers have familiarized us, saying that "Democracy can't benefit us unless enough Americans are trained effectively to do their duty as citizens. This is why we have public schools, but they are not attending to it. The so-called teaching of citizenship is of little value. Civic instruction is absurdly inadequate and inefficient. It lacks purpose and result. Harold Rugg finds "the school procedure still a body of subjects, not a culture, a campaign or a cure." If it is centered around anything, that thing is not the more perfect union but the knowledges and skills indicated in the course of study. Schurman calls our education bibliocentric or themocentric. The instigators of the free schools wished them to be politicocentric, devoted to our civic welfare. So many commentators are dissatis-

fied with us that we are in danger of becoming deaf to the "wolf, wolf" alarm and of adopting the defense reaction of the ostrich.

But from what I see and hear, it appears that in our conventions, in our authors' books, the revolution that the Briggses, the Ruggs, the Tildsleys, the Wellings, the Prossers, the Judds, the Sissons and the Bodes proclaim is nearer than ever. This is an aid to you in keeping your own schools in line. You send out notice that you want the teachers to come prepared to suggest how the national promises may be realized. You "inject" into the meeting some of the enheartening things these authorities are saying. "What shall you do," you ask your good people, "to get yourselves into the procession?" The minister urges his flock at least once a week along the right road. Is your flock less precious than his? The answer is "No." You cannot preach educational duty too often or too emphatically.

What Is the Superintendent's Part in Supervision?

How far does the superintendent participate in supervision?

This question is discussed by William G. Brink, Northwestern University, in *Educational Administration and Supervision*.

Information, obtained by interviews with superintendents in cities from 25,000 to 100,000, revealed the following facts: In 40 per cent of the schools visited, superintendents said that they spend at least 50 per cent of their time visiting teachers. This visiting is largely for the inspection of the pupils' work, for rating teachers and for assisting teachers in such matters as methods of teaching, the selection and organization of subject matter and the adaptation of instruction to individual needs.

"In the larger school systems, where several different types of supervisors are employed, the question may be asked as to why it should be necessary for superintendents to engage in practically the same supervisory activities as those delegated to other supervisors," Mr. Brink continues in his article. "Would it not seem that the superintendent's responsibility should be confined largely to general direction and coordination of all the activities of his supervisors? This, of course, would not imply that he should not remain in close touch with the classroom and the problems of the teaching staff. It would rather mean a change of emphasis in the purposes for which superintendents should engage in direct and personal supervisory activities."

Schoolhouse Planning: Factors Affecting School Policies

Different methods of school administration affect both the number and the size of the physical units and an early decision regarding operating policy should be made by the board, led by the superintendent

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EARLY in the development of the school plant program the question of future organization arises. Just as soon as the extent of community responsibility has been determined the organization policy should be officially considered and a decision in regard to it made. It is essential that such a decision be formulated at the earliest opportunity. Without it, appraisal of the existing plant and the tentative formulation of the ultimate plant cannot be made.

From an ideal standpoint every school board should have answered these questions and adopted a set of working policies long before the actual question of the physical needs arises. Current practice is far from the ideal, however, and in most instances the question is never considered until the plant program survey is well under way. Such lack of foresight in planning is unfortunate and is the occasion of numerous delays. The hurried adoption of a general policy may even cause serious community conflict and the policy may fail to win popular support or may be carried on for many years under the handicap of a hostile minority. Though the question is discussed here in academic sequence, too much stress cannot be laid upon the fact that broad educational policies should be considered, developed and gradually placed in operation long before the demands for extended and expensive physical facilities arise.

Policies Must Suit Individual Needs

Responsibility for keeping the board of education and the community abreast of significant movements in education rests with the superintendent. A continuous survey of conditions within the system and a knowledge of the development of more general tendencies outside of the system offer an excellent basis for planning.

The selection of an ultimate organization is somewhat complicated at present by the fact that educational organization is in a state of flux. Up to 1910 it was fairly stable with the K-8-4 dominant in the Midwest, the 7-4 in the South, and the 9-3 popular in certain sections of the East. In the

present or transitional period numerous experimental forms of physical organization have come into existence. Many of these differ radically from each other with respect to physical plant demands. There is no evidence to show that one plan has marked superiority over the other. Further, there is no general agreement among instructional or administrative specialists regarding the best type.

However the public schools are a functioning social activity and cannot postpone decisions of this type until all of the evidence is available. Their problem is immediate and must be solved as practically as possible in terms of present knowledge. Organization may be considered as an immediately feasible way in which to administer economically and effectively the program of responsibility upon which the community is operating.

Defining Educational Fields

While there is no apparent general accord with respect to details, a fairly general agreement exists regarding the larger aspects of organization. The fields of elementary and secondary education are fairly well defined. In general we may consider the preadolescent period as the field of elementary education. This broad definition would include all organized educational activity between infancy and the age of thirteen, approximately. In the average organization this would mean the kindergarten and the first six grades. In experimental centers the elementary field would include the preprimary (nursery and present kindergarten), the primary and the postprimary, in reality, a nine-year elementary school.

Secondary education may be considered as including the adolescent period, or the age groups between thirteen and twenty. In terms of current organization this means eight years of instruction, or from junior high school through junior college. The most typical current secondary program extends only through the twelfth grade.

Experiment in organization is producing several types that are more in favor than others. These

represent practical selection and if they continue they may point toward ultimate tendencies. While many conservative communities still cling to the traditional 8-4 plan, it is quite doubtful whether

TABLE I—NUMBER OF PUBLIC SCHOOL CHILDREN WITHIN A SIXTEEN SQUARE MILE AREA

Grade Revision	Assumed Number	Per Cent
K, 1-6	24,000	69.3
7-8-9	8,400	24.3
10-11-12	2,200	6.4
TOTALS	34,600	100.0

the traditional type will ever return to its former popularity. It will probably be accepted for economic reasons when it really begins to compete in breadth of program and richness of curriculum with some of the experimental organizations. While still dominant in fact if not in name, it must be considered as the one most likely to change. In many communities with a relatively small secondary school problem the 6-6 organization is most favored. If the kindergarten is operated it becomes a 7-6 system but the addition of this year at the bottom of the program does not affect spacing. This type of organization appears to be economical from a physical and an administrative viewpoint. It is possible to organize physically upon this plan and instructionally upon the 6-3-3 plan. Its economy will certainly play a large part in retention and development. The 6-6 organization is physically well adapted to the small community.

In the larger cities there has been a significant swing towards the 7-3-3 plan. The size of the unit and the number of children have made it administratively feasible to organize secondary education into a junior and a senior division. Since this plan, contrasted with the traditional 8-4 plan which offers the same program, is more economi-

TABLE II—DISTRIBUTION OF CHILDREN AND BUILDINGS ON K-8-4 PLAN

Grade Division	Assumed Number	Number of Buildings	Approximate Capacity
K, 1-8	29,880	16	1,900
9-12	4,720	1	5,000
TOTALS	34,600	17	

cal to administer, it is again reasonable to assume that this tendency towards the 7-3-3 plan will continue.

Still a third significant tendency is presented by the California plan in which the last two years of secondary education (now the junior college) are planned as definitely integrated into a program

with two divisions of four years each. The 7-4-4 is a plan that merits careful study and consideration. Whether secondary education is ultimately condensed into seven instead of eight years is not of such immediate significance as the fundamental concept behind this plan. It is the first scheme of organization that provides definitely for the complete integration of the last two years of secondary education, instead of adding them as a separate and more or less independent two-year unit at the end.

There are many variations of these tendencies and practices. Practically all of the experimentation assumes the same classification of elementary and secondary education and provides for differ-

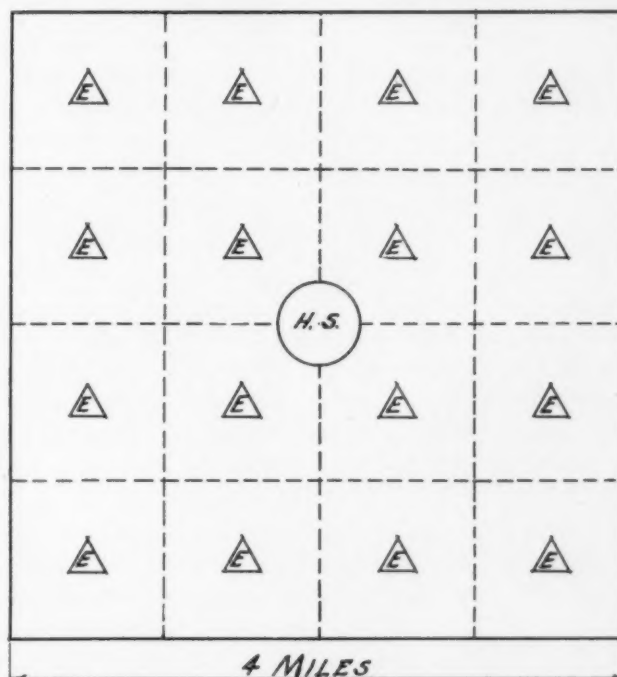


Fig. 1.

ent organization at a common point. The immediate form taken by these organizations is not of such great significance. Extensions of elementary education downward to include the nursery or of secondary education upward to include the present junior college may be effected without greatly changing the physical plant.

Adoption of any one of these four plans is immediately reflected in physical planning. Whatever current organization happens to be, a definite policy for future organization should be provided and the transition made carefully and economically. Some of the effects of these specific programs upon the physical plant may be illustrated by assuming a generalized situation and fitting the different organizations to it.

Let us assume that in each case the total physical area to be developed is sixteen square miles, with a total public school population of 34,600

children. The elementary spacing in each case is the preferred practice of one mile between buildings or a drawing power of one square mile. The distribution by grades is indicated in Table I.

The first problem is the provision of buildings for this area in terms of a K-8-4 organization. This would require sixteen elementary buildings, each with an approximate capacity for 1,900 children. With this plan there would be 4,720 children in secondary schools, and in terms of accepted spacing standards the physical requirements would be one building with a 5,000 capacity. If smaller secondary school units were desired, four might be built instead of one, each with a 1,300 capacity. The more economical procedure, how-

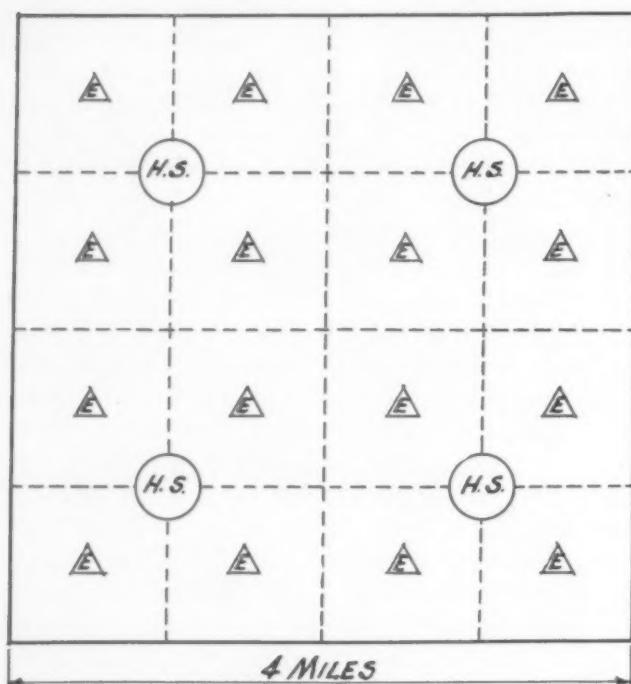


Fig. 2.

ever, would be the development of a single large four-year high school. Under this plan a total of seventeen buildings would be required. The distribution of children is indicated in Table II and the spacing of buildings in Fig. 1.

The next problem is to determine the effect of a K-6-6 plan upon physical plant requirements. Sixteen elementary buildings would be required in this case but the individual capacities would be only 1,500 because the seventh and eighth grades are now removed and classified with the secondary group. There are 10,600 children to be cared for in secondary schools. Since this number includes the smaller children of the seventh and eighth grades, the factor of distance and hazard must be considered more carefully. Four secondary buildings, spaced two miles apart, are essential. Each of these would have an approximate capacity for 2,700 children. The total building requirements

under this interpretation of the K-6-6 plan would be for twenty units, four of which are devoted to secondary education. This distribution is shown in Table III and graphically illustrated in Fig. 2.

TABLE III—DISTRIBUTION OF CHILDREN AND BUILDINGS ON K-6-6 PLAN

Grade Division	Assumed Number	Number of Buildings	Approximate Capacity
K, 1-6	24,000	16	1,500
7-12	10,600	4	2,700
TOTALS	34,600	20	

The third solution calls for the organization of a K-6-3-3 plan in the same area and with the same number of children. The elementary requirements will be exactly the same as in the K-6-6 plan, sixteen buildings with an approximate capacity for 1,500 students. Secondary education is now divided into a junior and a senior section, with 8,400 children in the former and 2,200 children in the senior group. The junior needs may be met by planning four units, each with a mile radius in drawing power, or two miles apart and an individual capacity for 2,100. A building for the senior division would be logically placed in the center, with a radius of two miles and a capacity for approximately 2,200 children. The total number of buildings would be twenty-one, as compared with twenty and seventeen for the two other methods. These data are shown in Table IV and are graphically illustrated in Fig. 3.

In terms of total building units it appears that the 8-4 plan is the most economical and the 6-3-3 the most expensive. If the same richness of program and breadth of curriculum are assumed to prevail under all of these organizations and the same specialized provision made for the needs of the adolescents the first or 8-4 plan would be the

TABLE IV—DISTRIBUTION OF CHILDREN AND BUILDINGS ON K-6-3-3 PLAN

Grade Division	Assumed Number	Number of Buildings	Approximate Capacity
K, 1-6	24,000	16	1,500
7-8-9	8,400	4	2,100
10-11-12	2,200	1	2,200
TOTALS	34,600	21	

most expensive to operate in terms of effective use of physical facilities. Each elementary building would have only 368 children in the upper two grades and the organization and administration of the same wide program characteristic of the better junior high schools would be expensive to maintain. The only point to be made here is

that spacing plans cannot be judged solely in terms of the number of units without a careful consideration of the objectives of the instructional program and other factors of expense. The purpose was to show the effect that the adoption of different organizations has upon a school plant program and the vital importance of policy adoption.

There is another element in this series of organization plans that may have value to the superintendent and the board of education. Organization is in a transitional state. A particular school district may not be ready when the demand for new buildings arises. Not certain of what will ultimately be desirable, it still desires to make as little error as possible in the location of perma-

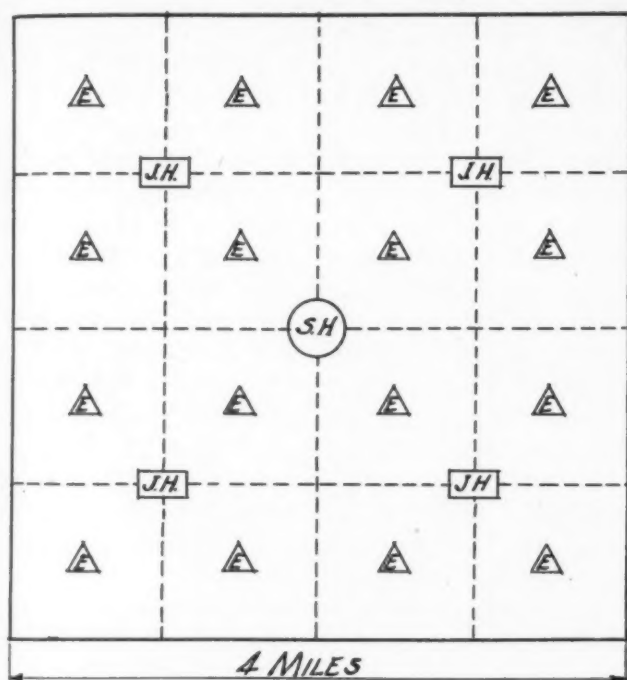


Fig. 3.

nent physical units. Organization may change within a decade but a well designed building should have a life expectancy of at least fifty years. Other districts may be in a transition state where only partial change in organization may be effected at any given time.

The safest plan to follow under these circumstances is to establish a basically sound elementary spacing policy so that these units may remain constant whatever changes in secondary organization occur. Secondary organization may be planned immediately upon a six-year basis, these schools being spaced just as if they were actual junior high schools. The transition from the 6-6 to the 6-3-3, the 6-3-3-2 or the 6-3-4 plans may be economically made in the future by designing the senior unit centered between the four existing buildings. The senior unit may then be

designed for any type of required program. This method will require the least amount of redesigning or scrapping. If the 8-4 organization is continued, it will mean building down from a large central building in the future, a policy that may be fraught with some embarrassment.

A board of education cannot neglect the responsibility for making an early determination of an organization policy. Selection should follow closely upon determination of the extent of community responsibility. The number, size and location of the physical units are determined directly by the extent of the program, by spacing and by the form of administrative organization. The existing plant cannot be appraised or the ultimate plant projected until the underlying long time policies have been considered and adopted. The responsibility for leadership in the development of these policies belongs to the superintendent of schools.

New Jersey Bars Wife of School Physician From Board

Employment of a husband by a school board legally bars his wife from serving as a member of the board, the New Jersey Board of Education ruled in a decision recently handed down. The action of the board affirmed an opinion by Charles H. Elliott, state education commissioner, in passing upon the question which was raised by Mrs. Julia B. Davies, whose husband, Dr. Lemuel E. Davies, is school medical inspector of Matawan Township, Monmouth County.

"It is evident in the legislative plan for the administration of public education that citizens should accept the important position of board membership because of a desire to render public service rather than for the reason of financial remuneration," said Doctor Elliott.

"Further to assure unselfish service there was added the prohibition of direct or indirect interest in contracts or claims against the board. Without this prohibition a woman could aid in securing transportation contracts for her husband, teaching or janitorial positions for her dependent children and personal contracts for service and supplies.

"Not only might such salaries or remuneration under such contracts be increased because of her membership on the board, but her presence at the meeting with her interest in the contract might act to deter other members from expressing their views upon any inferior services or supplies furnished under contracts in which she was directly or indirectly interested."

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Editorials

What the Layman Thinks of Contemporary Education

THE deepest impression made by the reading of lay opinion as expressed in leading newspapers and popular magazines over a period of six months is that the layman is proud of the American educational system from the bottom to the top, but he is apprehensive lest those who are responsible for educational policies should become needlessly extravagant. There is constant warning to school executives to curtail expenses.

It has probably always been true that the taxpayer has been eager to keep down expenses for schools; yet when he is convinced that additional school buildings or facilities or an improved teaching staff are necessary for the betterment of the schools, he will vote for a bond issue to meet all increased expenditures. But a superintendent and a school board planning for educational extension will have to fight every step of the way now in order to secure adequate funds. In the newspapers and magazines there have been noted time and again accounts of the campaigns made by superintendents to secure new buildings or new equipment or to increase the salaries of teachers. With but few exceptions, superintendents have won out in the end in their programs of expansion.

A community must become convinced, however, that enlarged school facilities are necessary to keep it abreast of other communities and to prepare the children to meet the requirements of present day life. The superintendent of schools who can make it clear to the taxpayers that much more is demanded of young people to-day in American life than was demanded twenty-five years ago and that the educational regimen in a community must be extended and improved in order to prepare the children for the increasing demands of life, can win support for an expanding educational program.

The chief criticism by laymen of the public school to-day is that too much attention is being given to unimportant subjects of instruction while the essentials are being neglected. Over and over again one can read in the newspapers and magazines that the schools are running to fads and are turning pupils into the world ignorant of the elements of knowledge and the tools of daily life. Few, if any, editorials or articles

by laymen reveal any adequate understanding of what has been going on in American education the last three decades in the way of investigating the value of various subjects of instruction and the possibility of teaching spelling, numbers, handwriting and reading without devoting all the pupils' attention to these elementary things. Here is indicated the chief problem for a superintendent and his associates in a publicity campaign. The citizens are not keeping up with the schools; they see new topics being taught and new activities being practiced by pupils and they conclude that there must be neglect of the three R's. It has become a conventional and almost standardized criticism that the schools are growing weaker in regard to the fundamentals of education and are scattering their forces over so broad a field that young persons are not being educated for the needs of life.

It is disturbing to note that lay critics are judging the work of the schools by "common sense," but without any knowledge of the data that have been accumulated for twenty years or more regarding the curriculum and the economical and effective methods of instruction. A superintendent ought to have on his staff persons who have the gift of making the results of scientific investigations intelligible to laymen, who should be made to understand that the modifications that are taking place in the subjects of study and the methods of instruction are based upon elaborate scientific experimentation and are not due to the whims of a superintendent, a principal or a supervisor. Unless publicity is given to the scientific groundwork for modern education, the layman will drop farther behind and he will become more suspicious and more critical.

Whenever a superintendent makes a change in his course of study or his methods of instruction, he should give the newspapers a readable account of the experimentation that has been carried on, showing why he is cutting out of arithmetic, grammar, spelling or any other of the traditional subjects that which has ceased to be of much importance, and why the new topics he is introducing are of vital importance in helping pupils to understand contemporary life and to adjust themselves effectively thereto.

This is the line of publicity that needs to be carried on in every community throughout the country. Editorials and articles that have been analyzed show that "common sense" in every section of the country is lagging behind educational progress, built on investigation and experimentation. The "common sense" critic thinks that educators are faddists. He is quite unaware of the care that is being taken to secure adequate data

for every change that is being made in the schools. To inform the layman of this scientific work that is going on and the results that are being derived from it is the paramount need to-day in a publicity campaign in any community anywhere throughout the country.

Unemployment Among Teachers

REPORTS from state departments of education show that at this moment tens of thousands of qualified teachers are waiting for positions. Reports show further that there are no prospects of employment for the majority of these women—for they are mainly women. If a man who is prepared for teaching is not needed in the profession, he can apparently shift to something else; but not so with a woman. When she has completed a course in a teachers' college and there is no place in the schools open for her, she has nothing else to turn to.

This matter was recently put up to a distinguished educational sociologist when he was asked, "How would you solve this problem of increasing unemployment among teachers? If a girl has made proper preparation for teaching and is possibly in debt for her schooling, she grows discontented and becomes a social misfit when she is unable to find employment. Something must be done to remedy this situation."

The sociologist proposed that a widespread effort should be made to induce girls to go into home making and the rearing of families earlier and more extensively than they are now doing. He thinks that there should be in every junior and senior high school courses pertaining to home making and the rearing of children, and that everything within reason should be done to encourage girls to prepare for marriage and to stay out of teacher training institutions. This sociologist seems to be apprehensive lest women take up professions, especially teaching, so extensively that our country will be weakened because of a static or even declining population. To us, this view of the situation seems cold-blooded, impractical and wholly undesirable. Even if it were desirable to restore the old ideal of a girl planning to devote her life entirely to home making and the rearing of children so that she would marry at eighteen, and thus remain out of the profession of teaching, it is fantastic to think that we could prevent the movement in American life away from early marriage and the movement also for girls to achieve financial independence through the practice of a profession.

There are two feasible plans of dealing with

teacher unemployment. The first is to increase the requirements of intellect and of personality for the teacher's certificate, so that the lower third of those who are preparing for teaching would automatically be precluded from entering a teacher training institution. Already this plan is in effect in some places and is being discussed generally. Heretofore, normal schools, teachers' colleges and schools of education in universities have been making it as easy as possible for candidates for teaching to win a diploma. They have gone out into the highways and byways and have invited young people, girls especially, to come in and prepare for teaching. There has been great rivalry between teacher training institutions in most states to secure increasing enrollments.

Many deans and presidents are convinced that the appeal for enlarged facilities for training teachers on the grounds that enrollments are increasing, must be stopped. Otherwise we shall have so many idle teachers on our hands that we shall have to face a social situation that has disrupted older civilizations, in which one or another profession became greatly overcrowded, a condition that has involved the inevitable development of discontent and social unrest.

Another plan that, if put into effect generally, would absorb most and possibly all of the unemployed teachers is the extension of adult education. There is practically no limit to what might be done in the way of providing educational facilities for those who have quit the regular schools or higher institutions. There is certain to be curtailment of the working day and probably the working week of all adults engaged in any form of manual labor. The opportunity for the organization of an educational program that will provide interesting and helpful education for those who have two or three hours of leisure every day, and also one day a week, is the most challenging problem of our times. If we could carry through a general program of adult education adapted to the new times of shortened hours of labor, we could utilize the services of one-fourth more teachers than are now employed in the regular schools.

These two plans—increasing requirements for a teacher's certificate and greatly extending the program of adult education—were recently presented at a conference of educational and financial men. The objection raised by the latter group was an economic one. These financiers said in effect: "You cannot spend one cent more than you are now spending for educational work. Instead of planning to make education more expensive, you ought to be planning to curtail some of the expenses that have been piling up."

Here is a problem for economists. What proportion of the total income of a community or a state or a nation might be expended for the education of children, youths and adults, without disrupting the economic structure? Could we spend one-third more than we now do for education of every sort and still not imperil the economic well-being of the system as a whole?

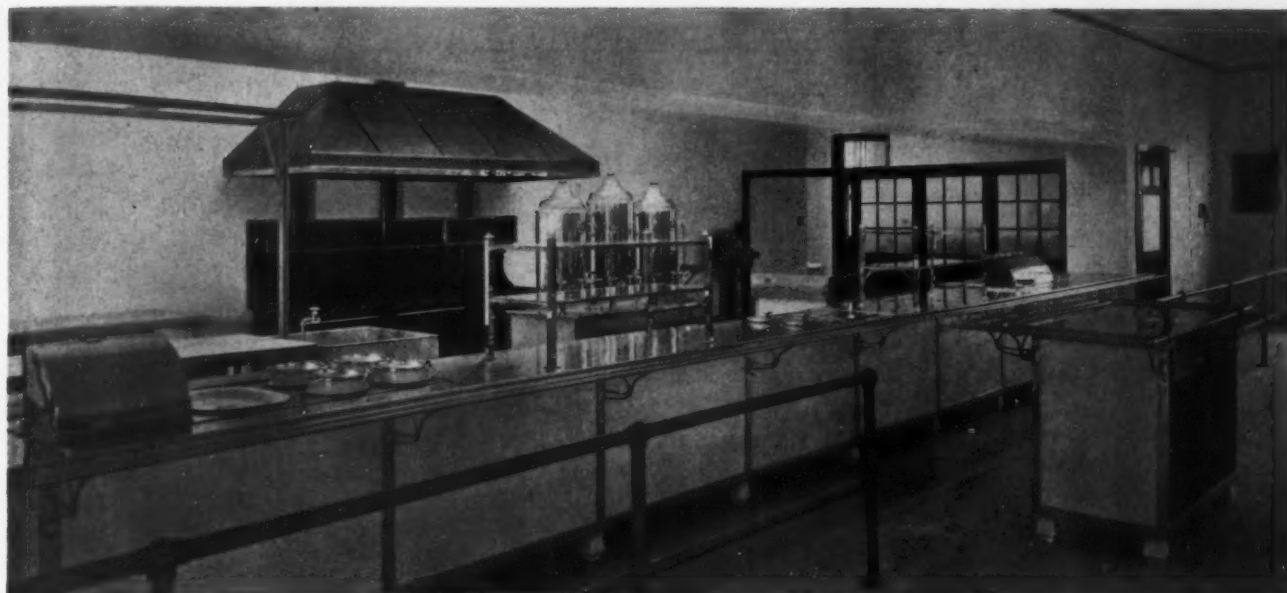
The Great Urge Toward an Education

EVERY year a great many more university students make application for financial aid than can be given help. Multitudes of promising young men and women wish to complete a university education but have no money except what they can earn. Hundreds of scholarships are awarded each year to able but penniless students in all the universities throughout the country; but there are thousands of worthy students who make application for help but for whom there are no available funds.

Each year men of wealth give vast sums to higher educational institutions. For the most part, the money thus appropriated is spent for buildings, for equipment, for beautification of landscape, for the extension of campus or for some other material improvement. It would be far better if donors to educational institutions would establish scholarships rather than provide only for material betterment.

Bernard B. Jones, Washington, D. C., has developed a plan that might well be emulated by other benefactors of educational institutions. He has established the Feild Cooperative Association in Mississippi for the purpose of aiding worthy young men and women who wish to secure a college education. In this way, he is assisting a great many students to complete their education not only in the higher institutions of Mississippi but also in colleges and universities throughout the country. He and his associates receive applications for help directly from young men and women whose ability and character are carefully investigated. Worthy applicants receive help, with the result that hundreds of capable but impoverished young Mississippians are receiving a higher education.

If similar assistance were given to young men and women in every state in the Union, money appropriated for the advancement of education in our country would accomplish more good than it does when it is given to boards of trustees to be spent in adding to the material possessions of colleges and universities.



How to Buy Kitchen and Cafeteria Equipment

This study shows how metals and materials affect kitchen equipment performance and offers suggestions for safeguarding the school's investment through simple comparisons of value

BY VINCENT R. BLISS, CHICAGO

IF YOU ask ten persons the question, "What is the most economical grade of restaurant and kitchen equipment?" you will probably receive ten opinions but few if any facts. Many experienced men have general ideas on the subject, but they can give surprisingly little definite information to support their views, and there is no evidence of any logical method for appraising value.

Yet our school systems invest millions of dollars annually in food service equipment. Such fixtures are purchased with a desire for permanence and it is expected that they will endure for the life of the building in which they are installed. Beyond question, however, there is a great difference in value between the grades of equipment and this is reflected in depreciation, obsolescence, maintenance and operating costs, as well as in general satisfaction. Choosing the class of equipment to be specified is therefore not simply a buying decision but a matter of more fundamental policy. The only sound basis for this decision is the making of an appraisal of comparative equipment values before specifications are drawn. If this is done the original investment will be safeguarded and the way opened to important economies.

Can some such method of evaluation be found?

It is conceded that there are difficulties. Accurate information on performance has not been generally available. The length of serviceable life of equipment is found to vary according to the usage and care it receives. Durability and cost of upkeep depend upon a combination of qualities such as design, construction, workmanship and materials, and the excellence of one may partially offset the weakness of another. Then, too, some of the most important values, such as sanitation and appearance, are not only hard to measure but are, at least to some extent, matters of opinion.

Aims of the Investigation

Although the situation is complex it still is feasible, I believe, to apply businesslike reasoning to this problem. A general analysis of kitchen equipment performance was therefore undertaken, and the initial findings are presented here in condensed form.

The objects of this kitchen equipment investigation were as follows:

To find a simple method or formula for making comparisons of value that will assist in determin-

ing the grade of equipment that should be specified.

To gather reliable data concerning the cost and all-round performance of various grades of kitchen and food service equipment.

To interpret these data in the form of typical comparisons of value for purposes of general information.

How Data Were Compiled

In carrying out this investigation information and opinions were obtained from kitchen operators, equipment engineers and other competent authorities, and the cooperation received was gratifying. While, as would be expected, a certain amount of variation in opinion was encountered, there was little or no disagreement concerning any fundamental points.

From the mass of information obtained, a number of definite comparisons have been compiled, touching upon some of the more important items of kitchen equipment. Based as they are upon the composite judgment of a number of experienced men, these comparisons are believed to be fair and dependable, and from them a clearer idea may be gained of the value received for the dollar paid. If it does nothing more, however, this study offers a method of valuation in which all important elements are considered and which can be applied in a practical way.

To get the good out of this material the basis upon which the investigation was made must be understood. This was as follows: It was assumed at the outset that the prime object was to determine what grade of equipment is most economical, in other words, to find the level of quality upon which competitive bids should be secured. It was also taken for granted that the purchaser would insist that competitive quotations actually represent identical construction, consistent with the standards of workmanship of the well established manufacturers. Under these circumstances the problem is simplified into a comparison of equipment as manufactured of different materials, for with design and construction the same, material is the thing that will determine serviceability and value.

The Factors Considered

After considerable study it was decided that the elements it is necessary to consider in rating the performance of kitchen equipment can be reduced to five: original cost; length of serviceable life; cost of cleaning, upkeep and repair; value of sanitary properties; value of appearance.

The importance of these factors is not always the same. In some cases sheer durability will outweigh everything else, while in others sanita-

tion, cost of maintenance or appearance will be of greater importance. It is often remarked that general statements as to length of serviceable life of equipment are difficult to make because so much depends upon the treatment received and the amount of care expended to keep equipment in good condition. This is true to a degree, but the ideal equipment is that which lasts indefinitely and keeps its properties in spite of hard usage and without laborious and costly maintenance, which are always points to be considered.

In accordance with the purposes of the investigation an effort was made to reduce everything to figures or percentages. This, however, was not a simple task for each man has his own idea as to the dollars and cents value of sanitation and appearance and even in the case of cleaning and upkeep no complete figures on costs have ever been available. For this reason two comparisons have been given in many instances, one of them being based simply upon cost *versus* length of life, and the other on all other factors, each of which is given an estimated rating of value.

Comparing Materials

As to the materials considered in the comparisons, these may be divided into several groups. The first group includes plain and galvanized steel, the second, copper in its various forms—plain, nickel plated or retinned, and the third, miscellaneous materials such as glass, porcelain and enameled steel. The fourth group is opposed to all the others and includes the noncorrosive white alloy metals. The data on alloy metals in this study are based upon the performance of monel metal, the only material of its class that has been in use for a sufficient number of years to permit full observation. It may be safely assumed, however, that other noncorrosive white alloys of high nickel content will give substantially the same combination of qualities.

Let us now proceed to the first comparison in which the method of rating the equipment is briefly explained.

Two grades of sinks were considered—galvanized steel sinks and those of noncorrosive white alloy metal.

An investigation among experienced kitchen operators and equipment engineers indicates that the serviceable life of a galvanized steel sink is between five and ten years (the consensus being seven years under average conditions), and that the life of white alloy metal sinks will equal that of the building in which they are installed or approximately thirty-five years. Under prevailing market prices, alloy metal sinks cost approximately three and one-half times as much as those

made of galvanized steel. From these facts we therefore reach this comparison of cost *versus* length of life:

	Galvanized Steel Sinks	Noncor. Alloy Metal Sinks
Length of serviceable life..	7 years	35 years
Original cost	\$50.00	\$175.00
Cost per year.....	7.14	5.00
Value per dollar of cost (based on length of life only)	70%	100%

Decisive as these figures are, however, they fall a long way short of telling the whole story, for there are three other important factors still to be considered.

Alloy metal sinks require little labor to keep clean and retain their original condition without deterioration throughout their life. These alloys are highly corrosion resisting and their surface is so hard and smooth that dirt finds little foothold. Their great strength and toughness enable them to withstand the severest usage so that repairs and maintenance costs are negligible. With galvanized steel sinks the case is quite different. Their protection coating is made of a soft metal which begins to chip and wear away seriously within from six months to two years, exposing the base metal to rust. The roughness of the galvanized surface and of the exposed steel causes dirt and grease to accumulate and makes thorough cleaning difficult.

Compared with the sanitary properties of plumbing fixtures used in other parts of the school, galvanized steel sinks are a generation behind the

times. The alloy metal sink, in contrast, offers a distinct advancement in sanitary conditions, for it is not only the equal of other commercial or domestic plumbing fixtures when new but keeps its properties without deterioration in spite of the severest usage.

There can be little comparison between the two classes of sinks on the score of appearance, especially after a short period of service.

Taking all these factors into consideration, we arrive at a really comprehensive comparison of value which may be expressed as follows:

	Galvanized Steel Sinks	Noncor. Alloy Metal Sinks
Value per dollar of cost (based on length of serviceable life only)	70%	100%
Economy of cleaning and up- keep	20%	100%
Sanitary value	10%	100%
Value of appearance.....	50%	100%
Average value per dollar.....	37½%	100%

Let us now compare the values of three types of urn stands—those with tops of noncorrosive white alloy metal, of polished copper and of nickel plated copper. In urn stands with warmer bases the difference in price between copper and alloy metal top fixtures is of negligible importance. In order to make our comparison as conservative as possible, therefore, we have based our cost figures upon urn trays mounted on an open stand. Following the same process of reasoning as described above the



View of the kitchen, Notre Dame University, Notre Dame, Ind., showing complete monel metal installation.

following comparison of original cost *versus* length of life is reached:

	Polished Copper Top	Nickel Plated Copper Top	Noncor. White Alloy Metal Top
Length of serviceable life....	15 years	15 years	25 years
Original cost	\$70.00	\$80.00	\$85.00
Cost per year....	4.66	5.33	3.40
Value per dollar of cost (based on length of life only)	73%	64%	100%

Now let us consider the other elements that influence the value of the urn stands.

Copper is easily corroded and discolored and therefore requires frequent polishing. Its softness makes it easy to dent and scratch, which adds to the work of cleaning and general upkeep. Nickel plated copper does not tarnish so quickly but within a short time the plating will wear off in spots, exposing the copper, so that the cleaning and upkeep of a nickel plated copper top urn stand are practically the same as for plain copper. The ease with which copper corrodes and forms injurious substances rules heavily against it from the standpoint of sanitation, and the same is true of nickel plated copper, except that corrosion is delayed for a time. As to appearance, nickel plated copper looks well when new but after the plating begins to wear away the result is worse than if plain polished copper had been used. Noncorrosive white alloy metal is demonstrably superior in all these respects, for its splendid sanitation and appearance and other properties are retained with negligible upkeep throughout the life of the fixture.

In this manner we reach a general summary of urn stand values, as follows:

	Polished Copper Top	Nickel Plated Copper Top	Noncor. White Alloy Metal Top
Value per dollar of cost (based on length of serviceable life only)	73%	64%	100%
Economy of cleaning and upkeep	20%	20%	100%
Sanitary value..	20%	20%	100%
Value of appearance	25%	20%	100%
Average value per dollar	34½%	31%	100%

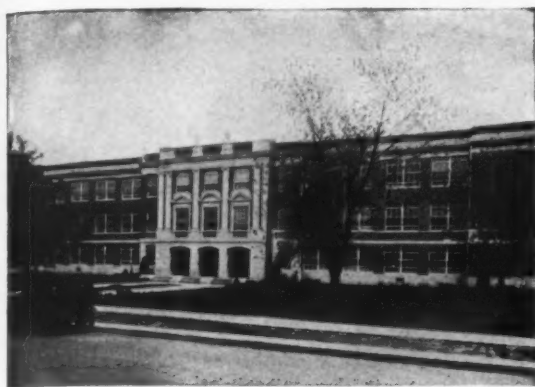
These two comparisons have been explained at some length in order to illustrate how this method of evaluation has been applied. As can be seen, every factor is given separate consideration for each type of equipment and ratings of value

"weighted" according to their relative importance. Space will not permit a full discussion of other items of equipment but a condensed summary of comparative values is given below for some of the more important classes of products. These were all computed by the method just described and the ratings were based upon data on performance secured through this investigation.

The comparison of steam tables works out the same in most respects as for urn stands, although the difference in price between copper and alloy metal top steam tables is a little greater because of the accessories that are involved. The ratings on economy of cleaning and upkeep are the same as for urn stands, but for sanitary value polished and nickel plated top steam tables are rated lower because of the increased importance of sanitation in any fixture used for the handling of food. In comparing steam table values, we find:

	Polished Copper Top	Nickel Plated Copper Top	Noncor. White Alloy Metal Top
Length of serviceable life....	15 years	15 years	25 years
Original cost	\$120.00	\$135.00	\$160.00
Cost per year....	8.00	9.00	6.40
Value per dollar of cost (based on length of life only)	80%	71%	100%
Economy of cleaning and upkeep	20%	20%	100%
Sanitary value..	15%	15%	100%
Value of appearance	25%	20%	100%
Average value per dollar	35%	31½%	100%

With regard to coffee urn values, the thought here is to compare nickel plated copper urns (two qualities) of seamed and soldered construction with heavy gauge white alloy metal urns made by the newer welding processes. The problem of damage through accident or neglect is an important point in determining comparative urn values. Gas heated copper urns if allowed to run dry are quickly burned out, for the solder used in their construction melts at a fairly low heat. This all too frequent occurrence results in a big repair bill if not in the actual destruction of the urn, in addition to which there may be a serious interference with service. Steam heated copper urns are liable to serious damage through collapsing if cold water is too suddenly introduced. Noncorrosive white alloy metal urns are now being made by welding, which enables them to withstand intense heat without damage, and the greater strength of the alloy metal offers so effective a protection against



FOR THE FUTURE COOKS OF AMERICA

floors that laugh at spilled things!

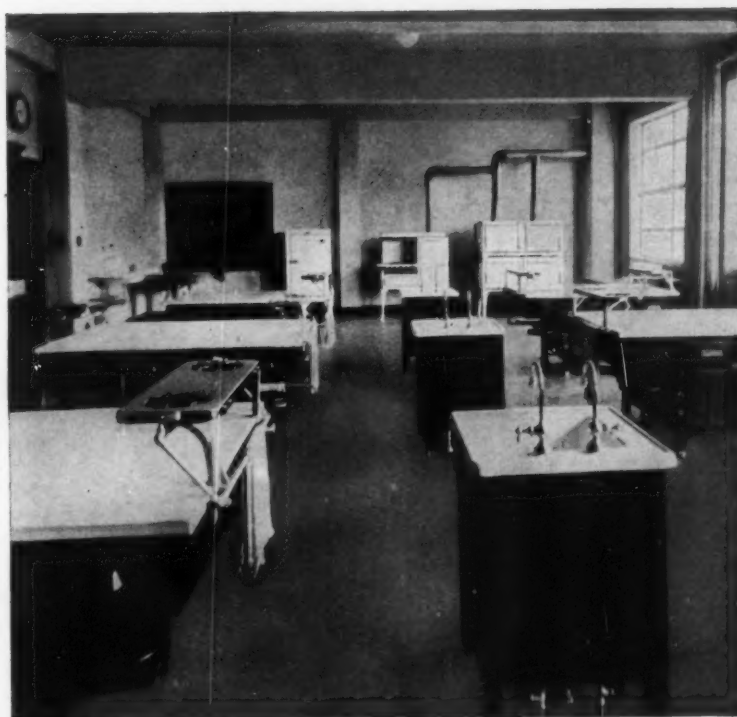
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Sealex Battleship Linoleum installed in domestic science class-room of Wellington High School, Wellington, Kansas. Architects: Schmidt, Boucher & Overend; General Contractors: Blazer-Volmer Construction Co.; Bonded Floors Contractor: O. McCormick Rug Co., Topeka, Kansas.

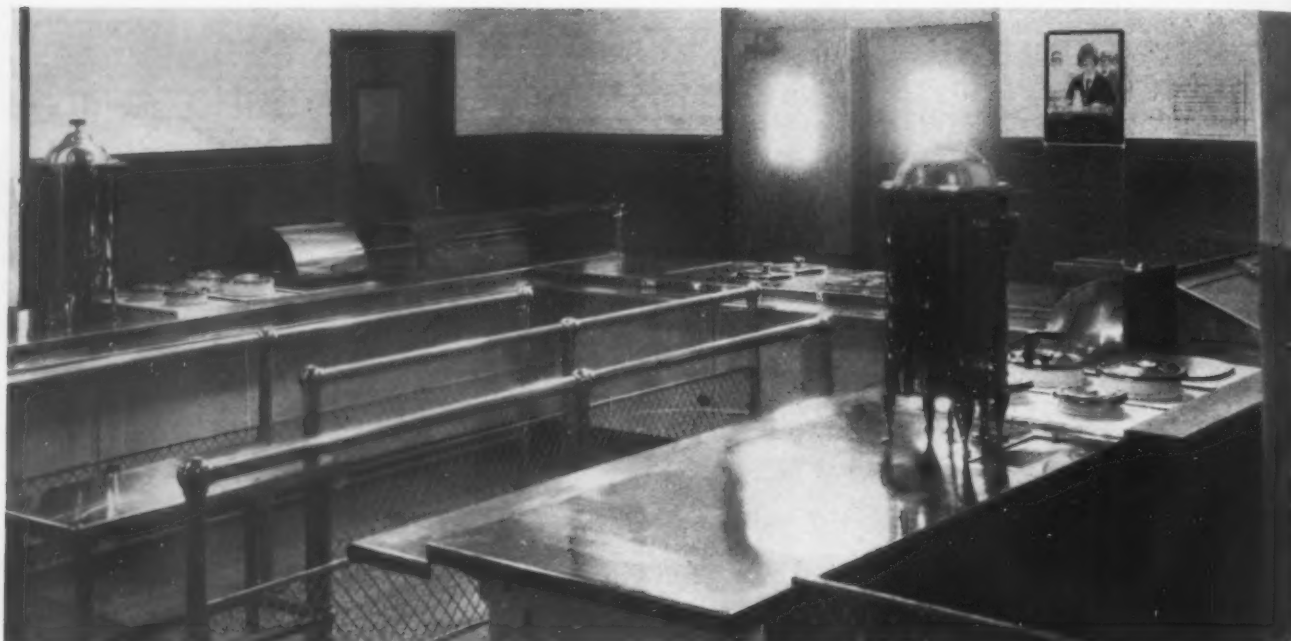
LET us send you our booklet, "Facts You Should Know About Resilient Floors for Schools." Or, if you wish, we'll send a specialist on resilient floors to give you information, samples and prices. Address Department T.

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Urns, steam tables and counter tops in the cafeteria of the Bridgham School, Providence, R. I., have been chosen for durability and appearance.

collapsing that the danger of failure from such causes need scarcely be considered.

A complete comparison of coffee urn values is as follows:

	"Grade B" Low Priced N.P. Copper Urn Battery	"Grade A" High Grade N.P. Copper Urn Battery	Welded White Alloy Metal Urn Battery
Length of serviceable life....	5 years	17 years	30 years
Original cost....	\$110.00	\$205.00	\$310.00
Cost per year....	22.00	12.06	10.33
Value per dollar of cost (based on length of life only)	46.9%	85.7%	100%
Economy of cleaning, upkeep and repair	15%	20%	100%
Sanitary value..	40%	60%	100%
Value of appearance	50%	75%	100%
Average value per dollar	38%	60.1%	100%

Naturally, it was necessary to assume that the dishwashing machines compared were all of the same type and make, for otherwise mechanical principles and efficiency would confuse the ratings of value. In comparing dishwashers it must be remembered that the mechanical operating parts will undoubtedly outlast the body of the machine in galvanized or copper construction, while with alloy metal the reverse is true. Here as in other comparisons durability is not the only important factor, for sanitation, ease of cleaning and appearance are all points on which there is a wide differ-

ence of value between various grades of equipment.

The following is a complete comparison of dishwashing machine values:

	Galvanized Dishwashers	Copper Dishwashers	Noncor. White Alloy Metal Dishwashers
Length of serviceable life....	7 years	12 years	20 years
Original cost..	\$1,000.00	\$1,225.00	\$1,450.00
Cost per year....	142.85	102.08	72.50
Value per dollar of cost (based on length of life only)	50.7%	71%	100%
Economy of cleaning and upkeep	30%	50%	100%
Sanitary value..	30%	50%	100%
Value of appearance	30%	50%	100%
Average value per dollar	35.2%	55%	100%

The life of galvanized steel dish tables is variously given at from five to fifteen years and for our purposes it will be safe to adopt a figure of twelve years, which is somewhat higher than the average opinion. For noncorrosive alloy metal the life may be figured as indefinite, as in other cases.

Such figures, however, still do not give a full comparison, for sanitation and economy of upkeep are actually of more importance. There are few if any places in the kitchen where perfect cleanliness and sanitation are as vital as in the dishwashing department. This condition can best be assured through the use of a material that does not deteriorate because of the action of water, foods, abrasives or cleaners and that discourages the

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*W*ith pardonable pride, the J. B. Ford Company looks back over a record of more than thirty-three years—a third of a century—of significant service to commerce and industry.

Anticipating the need of industry for scientific sanitation and cleanliness, the Wyandotte Products became the pioneers in the field of modern cleaning standards.

Outstanding in this record of successful accomplishment is the loyalty of our thousands of friends without whom our best efforts would have been of no avail.

Realizing this, we are sincerely glad at this goodwill season of the year to extend to our friends in every field of business activity our most hearty wishes for a

*Merry Christmas
and
A Prosperous New Year*



The J. B. Ford Company, Wyandotte, Michigan

accumulation of dirt or grease. Thus, corrosion resisting alloy metal serves the double purpose of promoting sanitation and lowering maintenance and repair costs.

In comparing dish table values, therefore, we find the following:

	<i>Galvanized Steel Top Dish Tables</i>	<i>Alloy Metal Top Dish Tables</i>
Length of serviceable life....	12 years	35 years
Original cost	\$100.00	\$263.00
Cost per year.....	8.33	7.51
Value per dollar of cost (based on length of life only)	90%	100%
Economy of cleaning and upkeep	20%	100%
Sanitary value	20%	100%
Value of appearance.....	50%	100%
Average value per dollar.....	45%	100%

In comparing polished steel and alloy metal top work tables, the conditions met with are again different from those considered heretofore. A polished steel top table of heavy gauge material and good workmanship is quite durable. If used where it will be subjected to the action of water, it will probably last for from ten to fifteen years, but if water is not present to any serious degree an estimate of approximately twenty years is probably fair. For alloy metal tables the life in either case may be estimated at thirty-five years. Here, however, sanitation, economy of upkeep and appearance are of greater importance than simple durability, for a work table by reason of the purposes for which it is used demands the strictest cleanliness and the highest sanitary properties. White alloy metal is infinitely superior in both respects, and the fact that it can be kept in spotless condition with little attention goes a long way toward removing the danger of any unsatisfactory condition resulting from neglect.

The comparison of work table values, therefore, is as follows:

	<i>Polished Steel Top</i>	<i>Noncor. White Alloy Metal Top</i>
Value per dollar of cost (based on length of life only)	90% to 120%	100%
Economy of cleaning and upkeep	20%	100%
Sanitary value	20%	100%
Value of appearance.....	40%	100%
Average value per dollar.....	42½% to 50%	100%

This comparison will also apply to dishwarmer tops. Here polished steel is at an additional disadvantage because of its tendency to soil the bottoms of trays and dishes.

The question of glass or alloy metal cafeteria

counter tops can be disposed of in a few words, as durability *versus* cost is a sufficient comparison. Glass tops may of course break or chip at any time and the average rate of breakage is probably equal to a total replacement within seven years. Alloy metal tops will last as long as the counters on which they are used, or about thirty years if they are well constructed. In the following comparison the figures for cost represent prices for a section of the top only.

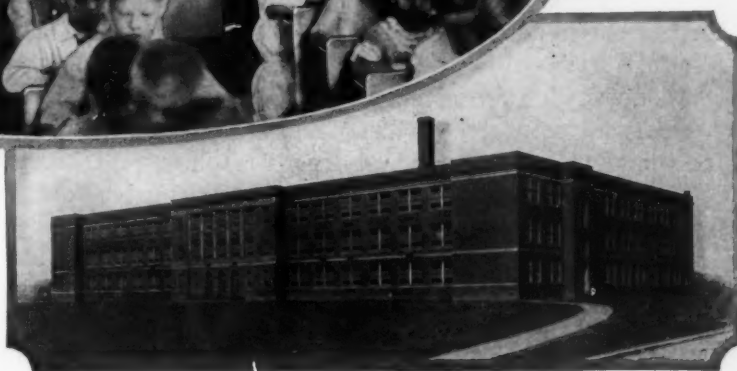
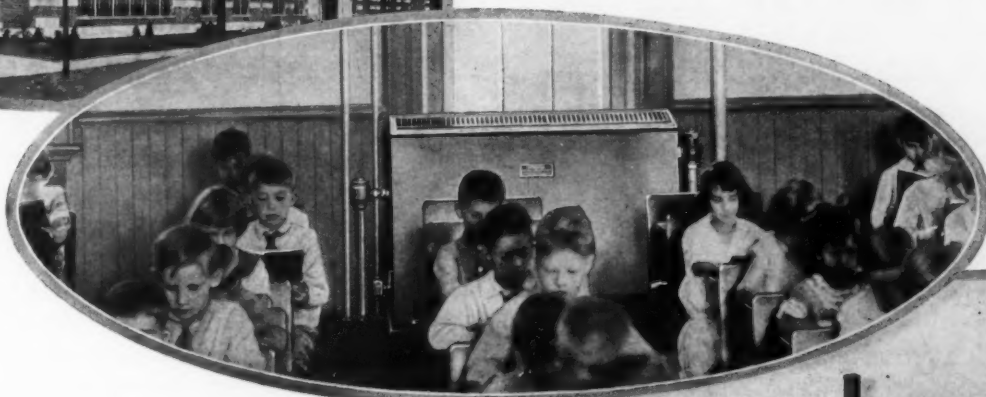
	<i>Glass Cafeteria Counter Tops</i>	<i>Noncor. White Alloy Metal Cafeteria Counter Tops</i>
Length of serviceable life....	7 years	30 years
Original cost (section of top only)	\$105.00	\$180.00
Cost per year.....	15.00	6.00
Value per dollar of cost (based on length of life only)	40%	100%

The comparisons given here represent only a few of the more important classes of equipment the choice of which between a range of qualities presents a considerable problem. Enough items are included, however, to make clear the suggested method of valuation.

In making this investigation of equipment values, the desire has been to provide a method of value comparison that can be applied in a practical way before equipment specifications are formed. The decision as to the grade of equipment to be used often receives less attention than the comparing of prices and the awarding of the contract, yet what to buy is more important than what to pay. The best of purchasing skill is worth little if the competing manufacturers have all figured on a grade of equipment that is not economical to use. With the aid of the comparative data developed through this study school administrators can decide what quality to buy with clearer understanding.

Before applying these comparisons to a particular buying problem, however, some adjustments may be necessary to suit individual conditions and viewpoints. The statements regarding length of serviceable life are the result of a careful compilation of data that is well vouched for. Comparative percentage ratings for economy of upkeep, sanitary properties and value of appearance also are thought to be fair and conservative, but as they are unavoidably based upon a summary of general evidence rather than upon statistics, they are subject to differences of opinion and interpretation. The main point emphasized is the desirability of employing a systematic method of valuation such as the one outlined here so that purchasing will be guided by logic instead of guesswork.

PeerVent was the Pioneer



(above)
Robert E. Barber School, Highland Park, Michigan
Architects: Burrows & Eurich
Heating Contractor: Leggett-Doll-Foster Co.

(in oval)
A Typical PeerVent Installation in a Classroom

(right)
East High School, Youngstown, Ohio
Architects: Louis and Paul Boucherle
Contractors: W. J. Scholl Co.

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Practical School Administration:

Satisfied Parents—A Determining Factor in School Progress

BY PHILIP C. LOVEJOY, ASSISTANT SECRETARY, ROTARY INTERNATIONAL, FORMERLY ASSISTANT SUPERINTENDENT OF SCHOOLS, HAMTRAMCK, MICH.

WITHOUT doubt numerous little things that are conducive to crankiness occur in the daily life of every teacher. It is so easy to become irritated. The teacher frequently feels that her task is demanding too great a price. She fails to see the great rewards that lie beyond the drudgery of the moment.

Unconsciously she weakens her own teaching technique to such an extent that the classroom fails to provide the proper environment for the pupils. The matter does not stop here. Each evening the dinner tables throughout the community become hotbeds of discussion concerning the activities of the day at school. Frequently the parents likewise become cranky and irritable because of the specific treatment to which their children have been subjected. As the parents ultimately pay the bill for public education it seems feasible that steps be taken to obviate any such disastrous developments.

Possibly if each teacher could grasp the full significance of education in a democracy as opposed to education in an autocracy or in a state of anarchy she would understand that hers is a most important task which demands the closest and fullest cooperation between the schools and the parents. She should realize that after all the democracy exists only as long as parents and children are enabled to understand that they are individuals with rights, desires and obligations. These must be integrated if there is to be a spirit of social cooperation and governmental progress.

Schools as Democratic Institutions

In an autocracy the state assumes full charge of the child and regards him as a ward of the state. Parents are merely the means whereby the state receives its new citizens. Divine rights are assumed and the state avers that it is always right. The individual is to be trained to conform to the desires of the state as interpreted by the minority ruling class. In the past the unfairness of this entire procedure became so evident that at the cost of much strife and bloodshed the state was called to account. Democracies were developed.

In other words, the people decided that they had the right to determine the type of state in which they wished to live. Their bill of rights must receive first consideration.

This meant that society was to be much harder to control from that time on. It meant that the life of the individual was to be much more difficult for he now found it necessary to make decisions and to abide by the results of these decisions. It meant that society would progress or retrogress in proportion to the ability of the citizens to live in harmony with one another. It meant that each individual had to have considerably more education in order that he might see the entire picture rather than his own small sphere of activity. It meant that far more democratic institutions had to be developed and the school was one of these.

The Old and the New Teacher

To be sure the school continued to savor of autocracy for many years. A teacher was a teacher and hence she was right—at least that is the attitude she sought to develop. What she said was final and woe be unto him that dared to disagree. Hence the schools preserved a sort of *status quo* and no real development took place. Children came, listened, spoke on command, marched on command, stayed after school for errors, detested schools, were truant when possible, listened for the bell signifying no school to ring in inclement weather and hoped that it would rain.

Then came the age of new freedom. Democratic educational administrators were secured to control our schools. It was immediately discovered that the democracy would be benefited if the individual pupils were given some consideration. It was discovered that each child was a separate entity; that he was different from every other child; that education must be so patterned as to give the individual an opportunity to express himself and to develop his latent ability. The teacher became a helper. Children were to be given a chance to plan their own activities. They were to be given an opportunity for self-expression—an investigation of the past was designed so as to

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Like other specialties entering into the construction of a school building, panic devices offer the choice of buying an article which is low in first cost or one which is higher priced, but which, because of freedom from maintenance expense, costs far less over the life of the building.

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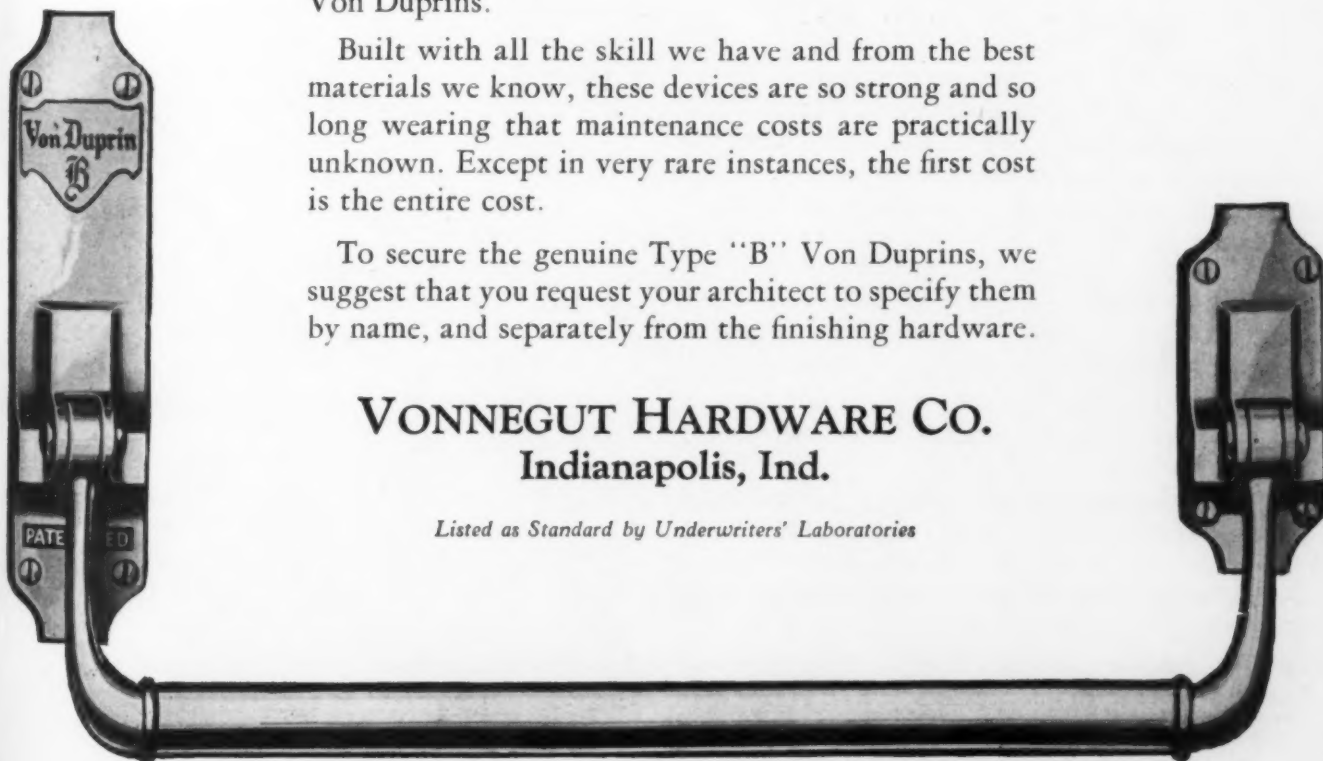
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bring out the wisest methods of procedure for the future. Thus the democratic school came into being. The ideals became not the acquisition of a specific amount of subject matter but rather the development of attitudes, habits, skills and ideals conducive to successful living.

The teacher in this school is not less important than in the old school; in fact she is far more important. Even though she is relegated to the background, she now has a more difficult task for she must direct in a skillful manner the activities of the schoolroom and she must consider carefully the abilities of each child. Collectively, teachers must develop these abilities and learn social cooperation. In other words, a certain type of freedom has developed and choice is permitted.

Long lines in hallways have disappeared. Children move from class to class with the same alacrity they use in walking down the city sidewalk. They use judgment in making decisions. They develop latent abilities. They become creative agents in this school of the democracy. They plan their own plays and then present them—they write creative literature. They have free play in the gymnasium. They decide when they need tests and examinations and they learn to get along with each other. All this constitutes an entirely different type of school.

The teacher's task has become more difficult. To ascertain what it is all about she has had to go to summer session and to take extension classes. Thinking parents agree that this type of school is giving a much greater development to their children. Truly they are children of the new age.

We Must Consider the Parents

However, these changes were not wrought in a moment. Even now hundreds of schools in America have not yet learned that they are educating their pupils for life in a democracy. Thousands of children are being thwarted in their development. Some day these children will be dumped into a merciless world and they will not be able to make the necessary adjustments. Their abilities will have been dwarfed by an inconsiderate school and the failures will be legion. Municipal institutions will be overcrowded because of the inability of one branch of the democracy to fulfill its task.

In this modern plan of education parents must be considered. For a time in many cities the transition was being made too hastily. Parents did not understand and hence they became cranky. They felt that children went to school to acquire specific subject matter. Schools were certainly expensive and children should be disciplined. In

the transitional process parents subsequently were not informed as to the meaning of the new technique. Hence they often felt that their school tax money was wasted.

Thereafter wise and efficient superintendents decided that the morale of the community and nation would best be preserved by a program of public school information. Parents actually were taken into partnership and were informed as to the objectives of the new education. It was granted that the parents were partial owners of the children, and that while education must be compulsory such a procedure was for the best interests of children, parents and state.

Making Education Cooperative

It was at least realized that the state derived its income from the people. Education was a state function, for the simple reason that concentration of effort was a cheaper method. It was a technical process and the cooperation of all provided better facilities for all. (Witness the growth of consolidated schools.) Hence if the people were to provide the money for the education of the children, they were entitled to know something of the program of the schools and something of the results.

The public was taken into the confidence of the schools and was told the whole story. Education became one of the nation's greatest cooperative enterprises. The people were satisfied and gave more than one-third of their tax money without a murmur. Finally large school administrations grew efficient. Scientific budgets were prepared; reports of stewardship were made periodically and objective results were presented. Schools became complementary to homes and were recognized as such by the parents. Bond issues were approved and obsolete equipment was scrapped as in industry. At last the schools were keeping pace both in equipment and in methods. They became a success and were so accepted by the public.

All of this brings us back to the topic of parents. If we do things conducive to crankiness on the part of parents, bond issues will not be approved. Efforts at restrictive legislation will be made and the whole educational superstructure will tend to crumble.

What are some of these instances that tend to make parents happy or cranky? I shall cite a few actual instances. These are not listed with a view to being unkind to any school system but merely to call the attention of executives to conditions that may cause disintegration.

A child in the sixth grade went home to her parents and stated that she did not understand

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a certain matter. The child was interrogated as to why she had not asked the teacher for special help, whereupon she stated that the teacher had recently announced, "You children have colds, whooping cough or chickenpox, and I do not propose to have you give them to me. You keep away from my desk. Any child who comes to my desk will be given a deduction of five points in his work."

If you were a parent of this child, would you be made cranky or happy as a result of this situation?

A card was received in the mail from the teacher of Sammy, a freshman in high school. The card read as follows:

"My dear Mrs. Brown:

"It gives me great pleasure to inform you of the excellent work that Sammy is doing with me in his course in algebra. I appreciate the fact that in addition to the natural ability in your child, there must have been fine cooperation on your part. I should be glad to have you visit school at any convenient time.

"Sincerely yours,

"Mary M. Jones, Teacher."

If you were a parent of Sammy, how would you feel? Would you be cranky or happy? I talked to an executive the other day and he told me that it was not necessary to congratulate or compliment people for being right or doing what they should do. That was to be expected of them, hence why congratulate them. "Only in the most unusual instances should people be complimented," he said. Well, that is one view.

Pleasing Pupils and Parents

It was a hot day in the middle of July. Billy Brown ran four blocks to meet his father. "Look at what I received from the principal of the high school. It is a birthday card. I knew he sent them out during the regular school year, but here it is in the middle of summer yet he did not forget me." The greeting card was signed by the principal and read as follows:

"To-day is your birthday. Birthdays are happy days, for even though we grow older by the calendar, we may still keep young in spirit—always increasing our joy in life by the accumulated experience of successful years already lived. My sincere desire is that you may have many happy and prosperous moments throughout the years to come. With best wishes of the day."

These cards or similar ones were sent to each pupil in a high school by the principal throughout the three years he held the office. He paid for them himself.

If you were a parent of a pupil in that school

would such a card cause you to be happy or cranky?

A family moved to a new city, in another state. The daughter went to the local elementary school. Methods were different from those to which she was accustomed and she was bewildered. She questioned her teacher on some point and received the answer, "Do it like we did last year." She didn't have the slightest idea of how it was done last year and hence had to spend the first few months in getting acclimated.

Would you be happy or cranky under these circumstances?

Why Some Parents Become Critical

Three boys laughed in the schoolroom while the teacher was busy. She demanded a confession by the culprits in order to ascertain who did such a dastardly thing in a public school. (Think of it—three boys laughed at one of their fellow students.) No confession was forthcoming. Again the demand was made of the forty pupils in the room. "If no one confesses I shall have to punish the entire class." No confession was forthcoming, naturally. "Put away your things," ordered the teacher. "Make up sixty arithmetic problems, good hard ones, and then work them out and if you don't get them done before we close school this afternoon, work them out at home and bring them to me to-morrow."

One little girl went home to her mother with tears in her eyes, told the story and remarked that she was so sick of arithmetic. She still had ten problems to do, and she was good in arithmetic. There were no other lessons the rest of that day, just arithmetic as a punishment for three boys laughing at another. Shades of the inquisition!

A girl in an elementary school came home with the request that she be given 1¼ yards of linen dish toweling to be used in her sewing class. Her mother asked why she needed a yard and a quarter. The extra quarter yard was to be hemmed for a dish cloth, a linen dish cloth. How uneconomical and how unsuitable for the purpose!

Would you be happy or cranky in this instance? Would you develop confidence in this school?

In a town of ten or twelve thousand pupils frequently go to athletic contests in their friends' automobiles. When games are played in near-by cities in the late afternoon it is necessary to excuse pupils from school an hour early to take such a trip. In any case the school feels that when pupils are riding with other pupils in automobiles to a pupil contest that the school has some obligation with reference to the safety of the pupils. Accordingly it developed a pupil field trip auto-

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washes 7200 dishes in 1½ hours



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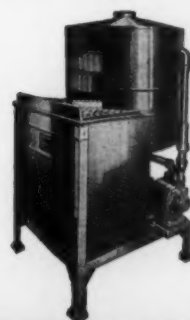
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mobile permit. The face of the permit reads as follows:

Blank High School

Pupil Field Trip Automobile Permit

The regulations on the back of this card pertain to every automobile driven by adult or pupil which is transporting B. H. S. pupils either during or after school on any school organized trip.

I hereby give permission to.....

Pupil

to go on a school field trip to

Place

between the hours of and on
..... date I understand that

..... will ride both ways in
.....'s automobile.

I understand my son or daughter will return
with the party at the end of the trip. Parent's Signature
Address
Phone

The reverse side has the following statements:

Blank High School

Pupil Field Trip Transportation

Rules

Any teacher who shall manage any field trip in which automobile transportation is necessary shall do one of these two things: (1.) He shall obtain a regulation bus which operates under the state commission and is fully insured or (2.) If using local automobiles driven by either pupils or adults he shall ascertain (a.) if full personal liability insurance is carried; (b.) if property liability insurance is carried and if not he shall not permit any pupil or adult to drive said car.

In addition to this where any pupils are taken on any trip by other than their own parents driving, the teacher shall in every case first obtain written consent of the parents of the child going on the trip that they may ride in such and such a conveyance and with so and so as a driver. There must be no switching of drivers without the parents' consent. All allotments of drivers shall therefore be made in advance.

Such written consent of parents shall be filed in the principal's office at the time the field trip request blank is filed, which is at least 48 hours in advance of the trip.

This rule applies to events during or after school hours in which the teacher is the prime mover or in which any teacher goes as a director or chaperone.

John Doe,
Principal.

Information About Driver of Car in Which
Your Son or Daughter Rides

Driver's name Age
Make car Type
Personal liability insurance
Property liability insurance
Driver's license No.
Auto license No. Year

Sometimes a field trip is taken to a near-by museum. The entire class goes on the trip by automobile.

Would such supervision on the part of the school authorities cause you to be cranky or happy?

A second grade pupil was transferred from one school to another in a different city. The health record on the pupil's card showed a systolic murmur of the heart. The receiving school paid no attention to the health record and assigned full gymnasium work to the pupil. The next day he fainted. It was necessary for the parents to send a letter to the school as a reminder of the health record.

Developing Creative Effort

In a certain elementary school the upper grades study Greece for a semester. All phases of life in that country are investigated during the term. At the conclusion of the semester, the pupils write their own pageant, "A Day at Mt. Olympus," in which are shown reproductions of the Olympic games, among them the sword dance and the chariot race. Special dances, such as the dance of the nymphs, are also included. They make the costumes and stage the entire event for the benefit of their classmates and their parents. They have exhibited creative effort.

A certain parent-teacher association meets during school hours. About one hundred parents attend, and a talk on some phase of school work is given by an educator. The teachers do not appear at any meeting during the year. The meeting resembles a Chautauqua on educational problems. It is a parents' association. No opportunity is given the parents to meet the teachers, or to understand the various procedures within the school.

Why Parents Should Be Pleased

I have striven to state at random a few instances that give an impression of a school system. Parents pay taxes for the support of schools, even if the money is paid indirectly through rent. They will certainly be given the opportunity to vote on bond issues and if they have not been considered in the administration of the school they may be cranky and opposed to the schools. They may even petition that increases in teachers' salaries be withheld because of a business depression. They may vote against bond issues. What is more, they may become angry with the democracy and develop into grumbling citizens rather than happy contented ones. After all, is not happiness most conducive to real social progress?



Central High School, Philadelphia

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Philadelphia, Pa.

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St. Paul, Minn.

Attention: Mr. D. H. Wright

Dear Mr. Wright:

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(Signed) HERBERT K. NEUBER.



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Your Everyday Problems:* Improving the Financial Support of Public Schools

BY JOHN GUY FOWLKES, PROFESSOR OF EDUCATION, UNIVERSITY OF WISCONSIN

A LETTER received a short time ago from the superintendent of schools in a Southern community of some 15,000 contains the following statement:

"We were handicapped in our start of school by the necessity of charging an entrance fee. After collecting \$3,000 in fees the board decided to refund the money, and I have been busy getting it back. Our situation at present is that we have enough money to run for six months, after which time we may close the schools as public schools and reopen them as tuition schools. I do not want them to go into debt as there is no outlook for the future for them to secure additional revenues. I am working on a retrenchment program for next year and I hope that we will be able to come approximately within our revenues."

In keeping with this statement, several requests have appeared recently for material that will help build up the financial support of schools in the communities represented. Before any decided increase can be made in the amount of money expended for public schools, it will be necessary to revise current methods of taxation. Such changes in taxation can be effected only by educating the public. Educational administrators must be responsible for much of this education.

A Model Plan

In 1918 the National Association of Tax Officials presented a model plan of taxation. Surely the recommendations of this group deserve the careful consideration of educational leaders. The following material on a model system for state and local taxation is offered as the basis for a sound program of tax revision.¹ It is hoped that both it and the summary will be of help in "educating the public."

1. Principles upon which the proposed tax is based:

The proposed system must raise the large revenues that our state and local governments

require at the present time. It must be practicable from an administrative standpoint, that is, it must be capable of being administered by such means and agencies as the states have at their command or can reasonably be expected to provide. It must be adapted to a country with a Federal form of government and to this end must reconcile the diverse claims of our various states, which now conflict at many points thereby producing unjust multiple taxation and disregard for interstate comity.

Underlying Principles

It must respect existing constitutional limitations, federal and state, or else point to practicable methods of constitutional amendment. It must represent as nearly as possible a general consensus of opinion, and to this end must give careful consideration to the most influential body of opinion developed and formulated by the National Tax Association. It must not propose measures wholly foreign to American experience and contrary to the ideas of American people.

2. The three fundamental principles underlying the tax laws of the United States, that is, the various states:

Every person having taxable ability should pay some sort of a direct personal tax to the government under which he is domiciled and from which he receives the personal benefits which that government confers.

Tangible property, by whomsoever owned, should be taxed by the jurisdiction in which it is located, because it there receives protection and other governmental benefits and services.

Business carried on for profit in any locality should be taxed for the benefits it receives.

3. The model tax plan in outline: The plan is a three-tax plan or in other words it considers three types of taxes, namely, personal income tax, property tax and business tax.

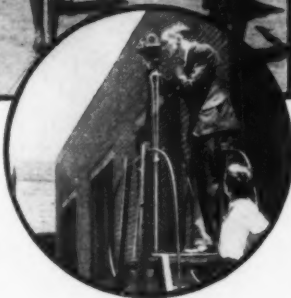
The personal income tax shall be levied consistently on persons only at the place of their domicile; the tax shall be levied in respect of the citizen's entire income from all sources; the tax shall be levied upon net income, defined substan-

* Discussions in this department deal with problems that frequently confront principals and superintendents. Inquiries on problems of this nature should be addressed to Doctor Fowlkes.

¹ A Model Tax System for State and Local Taxation, Proposed by the National Tax Commission, Summarized by John Guy Fowlkes.



Making school history at the James Wilson Elementary School, Philadelphia, with a Filmo movie camera filming the Flag Salute Drill.

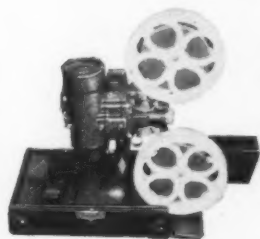


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tially as a good accountant would determine it.

The exemption of small incomes shall not exceed \$600 for a single person and \$1,200 for a husband and wife, with exemption of \$200 for each dependent up to a number not to exceed three. This is subject to change in certain states. The rate of tax shall be the same for all kinds of income, that is, it shall not be differentiated according to the sources from which it came.

Determining the Rates

The rates of taxation shall be progressive, the progression depending upon the amount of the taxpayer's net income, with the lowest rate not less than 1 per cent and the highest not over 6 per cent. The classes should have a range of \$1,000: For a single person for any amount of income between \$600 and \$1,600, 1 per cent; between \$1,600 and \$2,600, 2 per cent; between \$2,600 and \$3,600, 3 per cent; between \$3,600 and \$4,600, 4 per cent; between \$4,600 and \$5,600, 5 per cent; in excess of \$5,600, 6 per cent. These figures are merely for illustration of the committee's preferences, and do not represent definite recommendations.

The tax should be administered by state officials and should be collected from taxpayers upon the basis of strictly enforced and controlled returns and without any attempt to collect it at the source.

The property tax is a tax upon tangible property. Intangible property should be exempt from taxation as property. A distinction should be made between real estate and tangible personal property. The latter should receive a separate classification and the rate should not exceed \$1 per \$100. (This is not a set matter but can be fitted into the plan of classification of the state concerned.)

A uniformity of method of taxing tangible personal property is desirable, not only within states but throughout the states.

Effective administration is necessary and should be supervised and when necessary controlled by a tax commissioner or a commission.

Taxable Property

Only the tangible property of public service corporations should be subject to taxation, and the taxation of gross receipts and the *ad valorem* taxation of corporations as going concerns should be abandoned. (This is not to apply where the methods mentioned are in successful operation.) Relief might be given through the business tax.

For incorporated companies, the stockholders and bondholders pay a personal income tax on their interest and dividends; the corporation is taxed upon its tangible property; the corporation pays

a business tax in any locality where its operations are carried on.

No satisfactory provision is made for national banks.

No satisfactory provision is made for mining and mineral properties. It is agreed that the mining property under whatever method is adopted should pay a tax commensurate with the other real estate in the same taxing district.

No special method is agreed upon for forests.

The business tax should, except in certain cases, be levied upon the net income derived from business carried on in the state levying the tax. In concerns too small to come under the federal income tax, the tax might be levied upon the gross receipts, their gross purchase or the rental value of the premises occupied. The tax in no case should be less than \$2.

The rate of the business tax should be proportional and not progressive. The actual rate of the tax should be moderate.

The administration of the tax should be placed in the hands of a state tax commission or a commissioner, and the proceeds may be divided between the state and local authorities in due proportions.

This business tax is proposed as a substitute for all existing business taxes.

The System Summarized

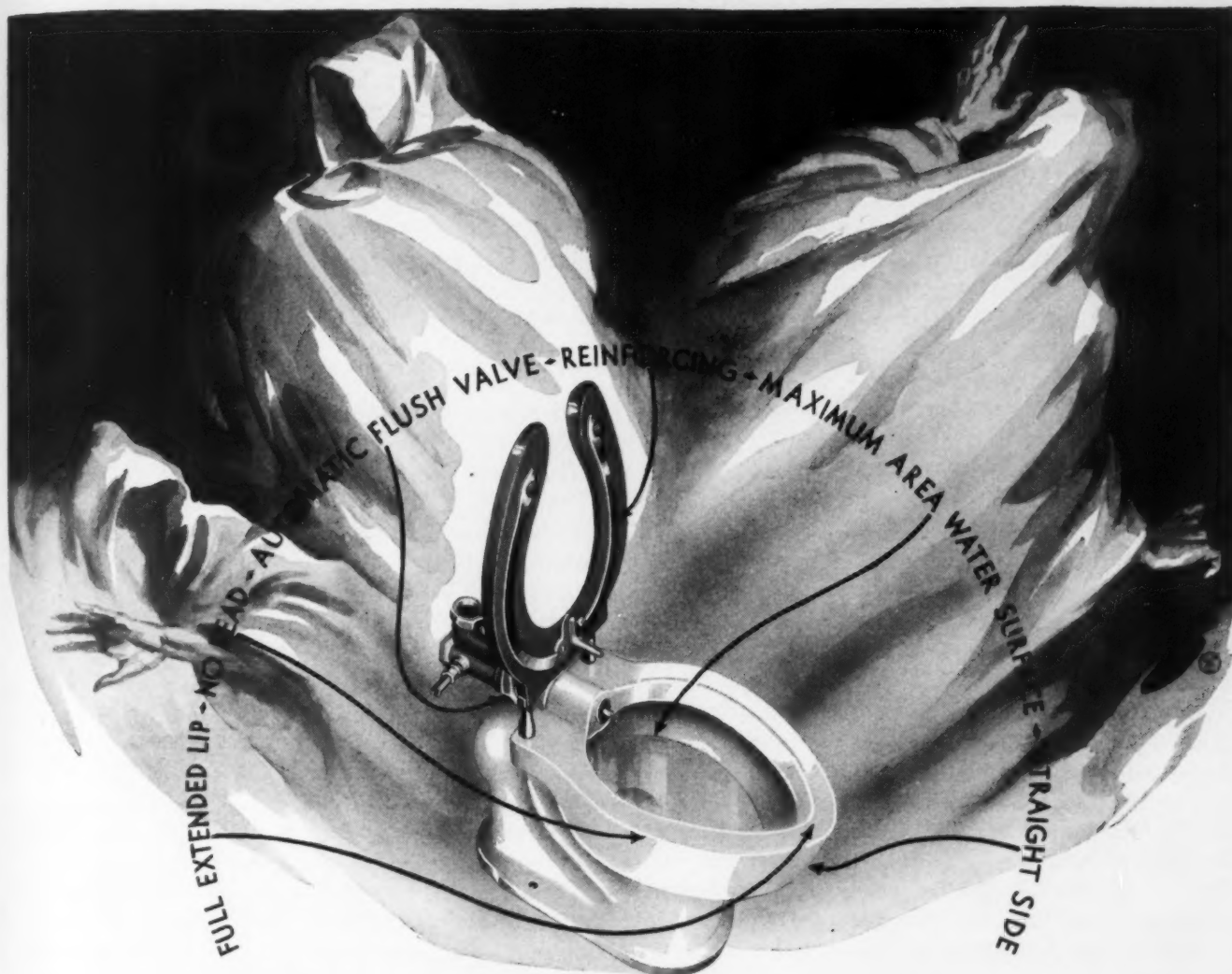
If interstate comity is to be respected and unjust multiple taxation avoided, any state that taxes business must levy a tax on every business within its limits, whether it is conducted by individuals, corporations or partnerships, and must not levy its personal income taxes or taxes upon property or corporate franchises in such a manner as to impose unequal and therefore unjust multiple taxation upon interstate business and investments.

In the following summary of the proposed system of taxation it may be seen that (Section 30) the system will satisfy any legitimate claim of any state; all persons will be taxed fairly where they live for benefits that they receive from the government; property shall be taxed at will of state at situs for government service it receives. The proposed system eliminates taxation of intangible property for fear of unjust double taxation and provides for a just method of business taxation where the state desires to have such a tax. Three separate taxes are recommended so that all persons may be reached in a fair and consistent manner.

Section 31: The combination of taxes gives better results than any one that could be used in securing the same amount of revenue, no matter how levied. In spite of the best system of admin-

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A New Closet That Helps Rout Three Ghostly Shadows

The Clow Soldier of Sanitation has built a new closet to rout the three grimmest shadows that hover in the toilet rooms of public buildings, schools, hospitals, industrial plants and similar places.

He has made the bowl low, semi-lipped

with a form-fitting seat for comfort. He has eliminated the dirt-catching bead that extends around the outside top of more old-fashioned closets.

He has made the bowl sides perpendicular. Anything dropped into the bowl will fall directly into water. Nothing can stick to the sides, because nothing can easily hit the sides.

And even careless minds are defeated and forstalled by the Clow-Madden Valve

that flushes the bowl *automatically* after every occupation.

The many records of ten, fifteen and even more years of trouble-free service established by this valve attest to the long life, and negligible repair costs that can be yours.

And with this brand new closet the Clow Soldier of Sanitation scores another big victory for you against your three most hideous toilet room enemies: *Failure—Short Life*—and their ghostly brother *Insanitation*.



This new *Exceltic* is available in floor standing and stack-hung types in standard or junior heights. It represents but one of the most complete line of specialized plumbing fixtures in the world, that stand behind the Clow Soldier of Sanitation. Ask for a copy of the Clow Catalog.

CLOW

CHICAGO

PREFERRED FOR EXACTING PLUMBING SINCE 1878

Consult your architect

istration there will always be some irregularities of taxation. The law of probability favors the three-tax system because the errors of one are likely to offset the errors of the others, granted that it can be expected that errors will not fall in the same place in all three forms of taxes.

Section 32: The three-tax system will bring about heavier taxation of funded incomes than unfunded, without requiring the state to undertake the difficult task of differentiating the rates of incomes. This is brought about by the combined property and income tax upon the same enterprise.

Section 33: Although the committee points out certain lines of action to be followed if interstate comity is to be observed, it allows considerable elasticity at other points.

The rules must be followed in the personal income tax which must be levied on persons at their place of domicile, and upon income from property at its situs, or the income from business at the place where the business is carried on.

The rules need not be followed in the property tax which may be changed to fit the particular case, or in the business tax which may be adjusted to state and local laws. If a business tax is levied it must be levied equally on all business carried on within the state to avoid unfair burdens. All states need not use the business tax. Although it is usually best to base tax upon net income, in special cases tax may be based upon external indexes.

Section 34: This section deals with the relation of plan to the classified property tax. The taxing of intangible property is not recommended because the personal income tax takes care of the matter. Tangible personal property should be separated from real estate and made subject to a lower rate of taxation.

Section 35: Some improvement in tax administration has been made through the creation of tax commissions or the appointment of tax commissioners. Much improvement is still needed.

Section 36: Specific recommendations concern the needs and conditions of the assessment districts, the appointment or election of assessors and the removal of assessors.

Why Assessors Should Be Appointed

The district must be large enough to justify the employment of a permanent official. The salary should enable the official to make it an all-time job. There should be a well equipped office and a sufficient number of able, permanent clerks and part-time assistants when needed.

Many districts are too small to justify full-time officials and as a result only inefficient men are

obtained. The county is a better assessment district than the township. It is better not to have an assessment district smaller than the county, unless smaller districts can support a full-time official.

It is better to appoint an assessor than to elect one since the appointment system assures better and more capable men. (This is not recommended by the commission.) Whether the assessor is appointed or elected the term should be four years.

Permanent Commission Is Recommended

All assessors should be subject to removal for willful negligence or malfeasance in office. This matter should be handled by the tax commission.

Section 37: All states should have a permanent tax commissioner or tax commission. The commission should not be made up of ex officio members.

Section 38: Personal income and business tax should be administered by state authorities.

No recommendation is made concerning the inheritance tax.

Section 39 favors an inheritance tax; has been in accord with the various recommendations made at times by the committee.

No recommendation is made concerning taxes upon consumption (Section 40) since such taxes are of little value except for automobiles.

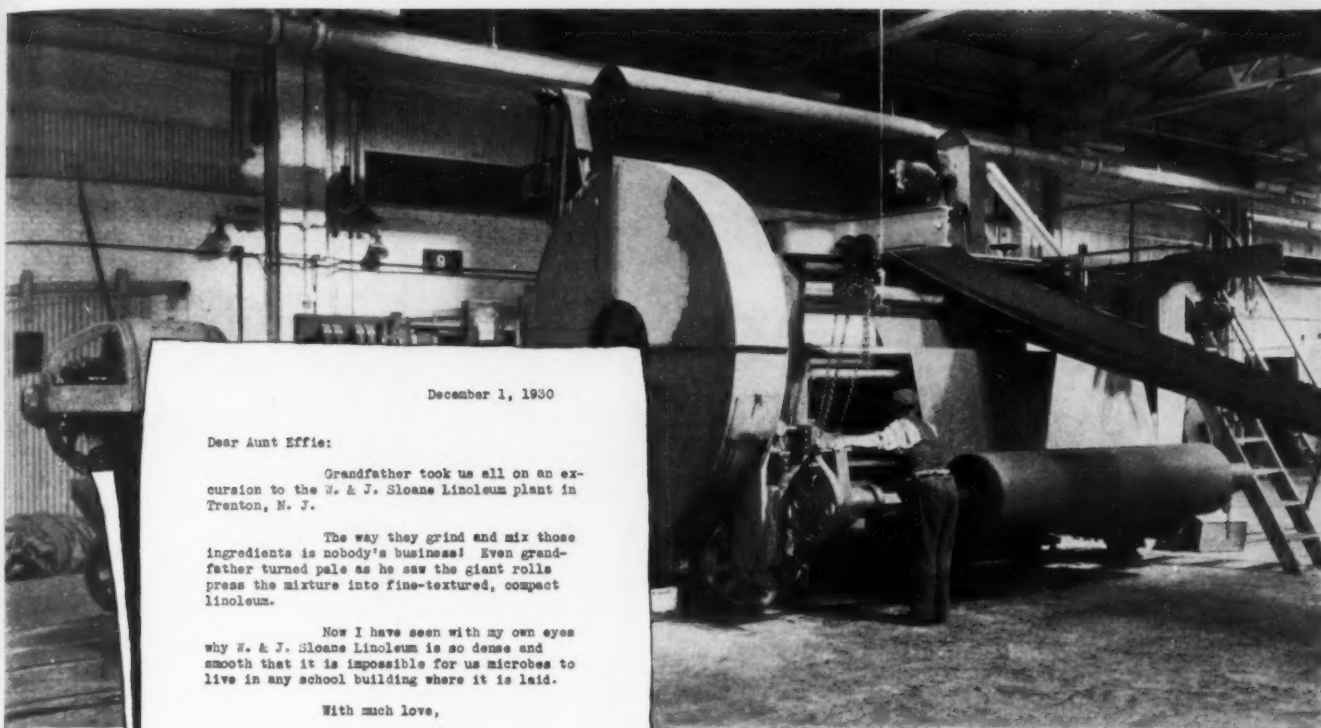
The following recommendations are made concerning the separation of the sources of state and local taxes.

Section 41: The committee is not in favor of a separation, although its ideas are not inconsistent with such a policy. Under the present income tax plan many states could raise enough money to run the government and could turn the taxation of property over to local districts. The returns from the business tax could be used by the state or returned to the localities from which it was collected. The committee favors partial separation but opposes an entire cutting of bonds.

A suggested separation is as follows: the inheritance tax is truly a state tax; taxes upon insurance companies are also a state matter; railroad taxes in certain cases should be state taxes; a state tax upon property should be retained as a regulator of the state finances.

With regard to amendments to the state constitution, it is pointed out that the plan will not require more or less amendment to the constitution than any of the other plans suggested.

In the January issue of *The NATION'S SCHOOLS* will appear an article of practical value for school administrators who have to consider methods of taxation in their communities in determining the amount that can be spent for education.



December 1, 1930

Dear Aunt Effie:

Grandfather took us all on an excursion to the W. & J. Sloane Linoleum plant in Trenton, N. J.

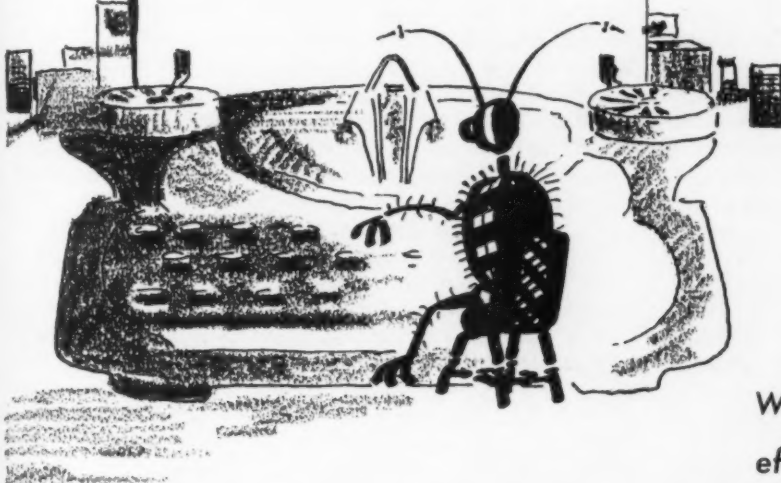
The way they grind and mix those ingredients is nobody's business! Even grandfather turned pale as he saw the giant rolls press the mixture into fine-textured, compact linoleum.

Now I have seen with my own eyes why W. & J. Sloane Linoleum is so dense and smooth that it is impossible for us microbes to live in any school building where it is laid.

With much love,

Willie Microbe

P. S. The School Board has just ordered W. & J. Sloane Linoleum for No. 9 School. We are moving at once.



The giant calender in the W. & J. Sloane Plant is the largest in the world. In a single operation it presses the ingredients uniformly in texture, density and thickness on to a strip of burlap to form, except for seasoning, trimming and inspection, finished linoleum.

W. & J. Sloane Linoleum is especially effective against microbes. Extra grind-

ing of ingredients plus 32% extra pressure in the calender rolls gives W. & J. Sloane Linoleum a uniform texture without cracks and crevices. Double-waxing at the plant adds a super-smooth finish, making it possible to use the linoleum as soon as laid. School officers and members of school boards will find in our comprehensive book: "Linoleum—What It Is—How It Is Made in the W. & J. Sloane Plant" many other reasons—sanitary, economic and decorative—for using W. & J. Sloane Linoleum. We will gladly send you a copy on request. Address Advertising Department, W. & J. Sloane, 577 Fifth Avenue, New York.

W. & J. SLOANE LINOLEUM

News of the Month

White House Conference Sets Up Standards for Child Welfare

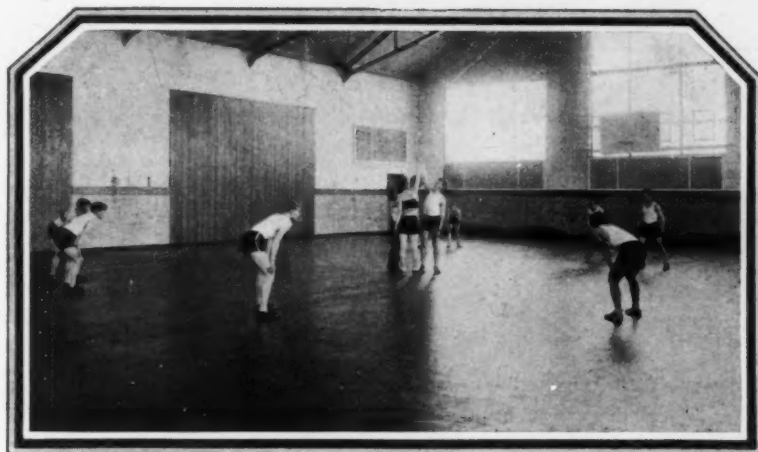
PLEDGING itself to "work harder for the children of America," the White House Conference on Child Health and Protection on November 22 closed its three-day meeting at which were considered plans presented by 1,200 experts on child care to protect the health and welfare of the nation's coming citizens. The delegates and guests to the conference numbered 3,000. Ray Lyman Wilbur, secretary of the interior, served as chairman of the conference and presided at the sessions.

A program to be followed was agreed upon. It sets up nineteen standards for the physical, mental, social, moral and economic protection of the child. Both urban and rural problems are taken into account, as well as special emphasis necessary in the services of child health and protection in Porto Rico, the Philippines and other insular possessions.

The standards adopted are as follows:

1. Every child is entitled to be understood; and all dealing with him should be based on the fullest understanding of the child.
2. Every prospective mother should have suitable information, medical supervision during the prenatal period, competent care at confinement. Every mother should have postnatal medical supervision for herself and her child.
3. Every child should receive periodic health examinations before and during the school period, including adolescence, by the family physician, the school physician or some other public physician, and such examination by specialists and such hospital care as its special needs may require.
4. Every child should have regular dental examination and care.
5. Every child should have instruction in the schools in health and in safety from accidents, and every teacher should be trained in health programs.
6. Every child should be protected from communicable diseases to which he might be exposed at home, in school or at play, and protected from impure milk and food.
7. Every child should have proper sleeping rooms, diet, hours of sleep and play, and parents should receive expert information as to the needs of children of various ages as to these questions.
8. Every child should attend a school which has proper seating, lighting, ventilation and sanitation. For younger children, kindergartens and nursery schools should be provided to supplement home care.
9. The school should be so organized as to discover and develop the special abilities of each child, and should assist in vocational guidance; for children, like men, succeed by the use of their strongest qualities and special interests.
10. Every child should have some form of religious, moral and character training.
11. Every child has a right to a place to play, with adequate facilities therefor.
12. With the expanding domain of the community's responsibilities for children, there should be proper provision for and supervision of recreation and entertainment.
13. Every child should be protected against labor that stunts growth, either physical or mental; that limits education; that deprives children of the right of comradeship, of joy and of play.
14. Every child who is blind, deaf, crippled or otherwise physically handicapped should be given expert study and corrective treatment when there is the possibility of relief, and appropriate development or training. Children with subnormal or abnormal mental conditions should receive adequate study, protection, training and care. Where the child does not have these services, due to inadequate income of the family, then such services must be provided for him by the community. Obviously the primary necessity in protection and development of children where poverty is an element in the problem is an adequate standard of living and security for the family.
15. Every waif and orphan in need must be supported.
16. Every child is entitled to the feeling that he has a home. The extension of the services in the community should supplement and not supplant parents.
17. Children who habitually fail to meet normal standards of human behavior should be provided special care under the guidance of the school, the community health or welfare center or other agency for continued supervision or, if necessary, control.
18. The rural child should have as satisfactory schooling, health protection and welfare facilities as the city child.
19. In order that these minimum protections of the health and welfare of children may be everywhere available, there should be a district, county or community organization for health education and welfare, with full-time officials, coordinating with a statewide program that will be responsive to a nationwide service of general information, statistics and scientific research. This would include: Trained, full-time public health officials with public health nurses, sanitary inspection and laboratory workers; available hospital beds; full-time public welfare services for the relief and aid of children in special need from poverty or misfortune, for the protection of children from abuse, neglect, exploitation or moral hazard; the development of voluntary organizations of children for purposes of instruction, health and recreation through private effort and benefaction. When possible, existing agencies should be coordinated.

Outstanding was the report of the subcommittee on administration of child health work which included many important recommendations.

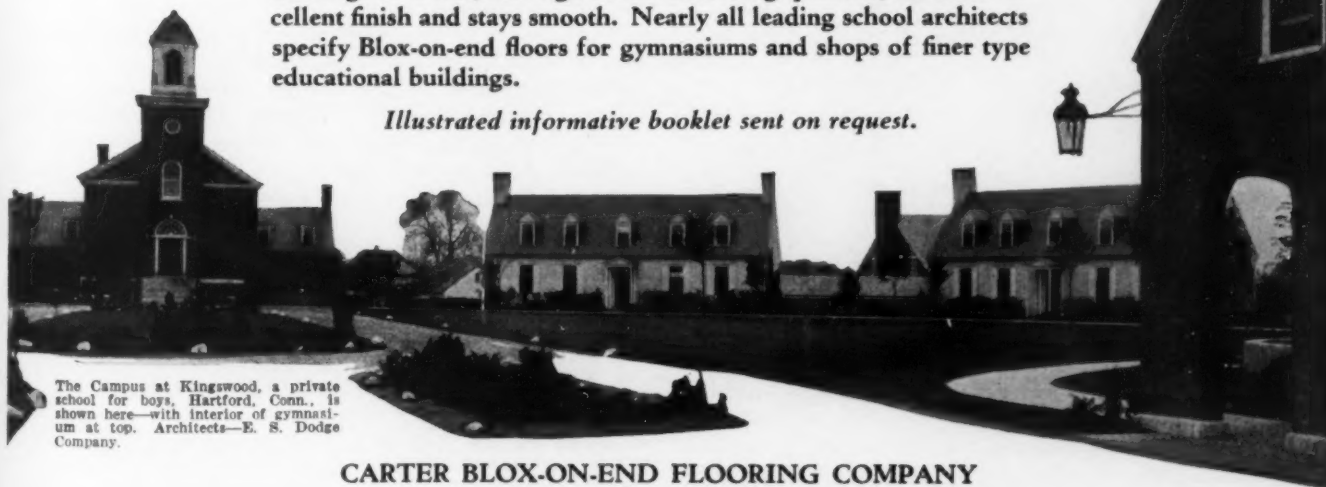


Let 'em "Rough-it" they're safe from Splinters

THE Kingswood School for Boys, Hartford, Conn., equipped its new gymnasium with BLOX-ON-END. Its officials and architect agreed they couldn't afford to sacrifice SAFETY for low first cost when selecting the most used and most abused part of any gymnasium—the FLOOR.

BLOX-ON-END, because of its end-grain construction is absolutely splinter-proof—as much so as a butcher's meat block. The floor is durable, inherently non-slip and inherently resilient. Added resilience is obtained by laying the built-up lengths of BLOX-ON-END over floor strips with voids between. Powdered boric acid (easily removed with a damp cloth) makes the floor just right for dancing. It is fast, has high sound absorbing qualities, takes an excellent finish and stays smooth. Nearly all leading school architects specify Blox-on-end floors for gymnasiums and shops of finer type educational buildings.

Illustrated informative booklet sent on request.



The Campus at Kingswood, a private school for boys, Hartford, Conn., is shown here—with interior of gymnasium at top. Architects—E. S. Dodge Company.

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KANSAS CITY, MISSOURI
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News of the Month

Junior College Executives Meet in California

The American Association of Junior Colleges met in Berkeley, Calif., November 18 to 20.

Of particular interest were the luncheon meetings which were arranged for both the public and private junior college delegates. Discussions of problems of particular interest to each of these groups were a popular part of the program. Dr. John W. Barton, president, Ward-Belmont School, Nashville, Tenn., headed the private school group and Dr. William H. Snyder, director, Junior College of Los Angeles, presided over the public junior college group.

Among the prominent educators who took part in the program were: Vierling Kersey, superintendent, state department of education, Sacramento, Calif.; James M. Wood, president, Stephens College, Columbia, Mo.; Lowry S. Howard, director, Menlo Junior College, Menlo Park, Calif.; Syatt W. Hale, registrar and assistant to the president, Birmingham-Southern College, Birmingham, Ala.; L. W. Smith, superintendent of schools, Berkeley, Calif.; G. H. Vande Bogart, president, Northern Montana School, Havre, Mont.; Winifred Skinner, librarian, Pasadena Junior College, Pasadena, Calif.; Dr. Robert G. Sproul, president, University of California; W. W. Kemp, dean, school of education, University of California; Stanton C. Crawford, director, Johnstown Junior College of the University of Pittsburgh; Ralph H. Bush, director, Santa Monica Junior College, Santa Monica, Calif.; H. G. Noffsinger, president, Virginia-Intermont College; William M. Proctor, professor of education; Walter C. Eells, professor of education, Stanford University.

Enrollment Increases in Private Educational Institutions

Business conditions appear to have had no adverse effect upon the total enrollment in private educational institutions, according to a recent survey made by a firm of school advertising specialists, which shows for 487 private schools, colleges and other private educational institutions in all parts of the country, an enrollment of 137,722, compared with an enrollment of 136,531 last year. Total fees paid by these students will amount to approximately \$100,000,000, nearly all of which is paid to educate boys and girls who might have attended tax supported institutions.

One thousand educational institutions, mainly boarding schools, were asked to send enrollment figures. Of the 487 which replied, 60 were boys' military schools; 97, boys' preparatory schools, nonmilitary; 114, girls' boarding schools; 93, colleges; 39, vocational schools and other small groups. The total capacity of these schools is 146,600. They are 93.9 per cent filled this year, compared with 93.1 per cent last year, an increase of eight-tenths of one per cent.

Schools that are more largely patronized than last year

are nurses' training schools, which show an increase of 17 per cent; vocational schools, including those that prepare for secretarial work, 14 per cent; colleges, 2 per cent; boys' nonmilitary, 1.7 per cent. The average showing has been a surprise to many persons who have been in close contact with private schools. Of the schools whose figures were collected fifty-four increased their rates this fall and only nine decreased them.

New York Deans Meet in Syracuse

The New York State Association of Deans held its fourth annual meeting in Syracuse, November 21 to 22.

The association is composed of persons, both men and women, holding positions of deans and those doing the work of deans in colleges, normal, senior and junior high schools and private schools.

Ohio Sponsors Showing of Foreign Films

The Ohio State Department of Education recently sponsored the first foreign version of an American film to appear in Ohio. This film, "The Big Pond," was presented in French and attracted a large crowd in which were numbered many university and high school students of the romance languages.

The director of education, Dr. J. L. Clifton, was gratified with the reception given this film with French dialogue. He stated to-day that he thought similar films would be given frequently in the leading metropolitan centers throughout Ohio and if the demand seemed to be sufficient, arrangements could be made to present these in college centers throughout the state.

These films are not made for educational purposes alone but are films that have been made for showing in the various foreign countries. They are full of interest, suspense and locale.

New One-Story School Combines High School and Grades

Representing an innovation in schoolhouse construction is the new combined high school and elementary school at Blooming Grove, Tex. It is a one-story brick building, yet it is so constructed that the elementary and high school departments are separated.

The bonds for the building were voted early in May, 1930, \$60,000 being set aside for the purpose. By utilizing the old building and by using the \$60,000 in addition, the town was able to erect a \$75,000 structure, which has been pronounced by school authorities as a splendid example of modern school construction.

G. H. Brown is the superintendent of schools.

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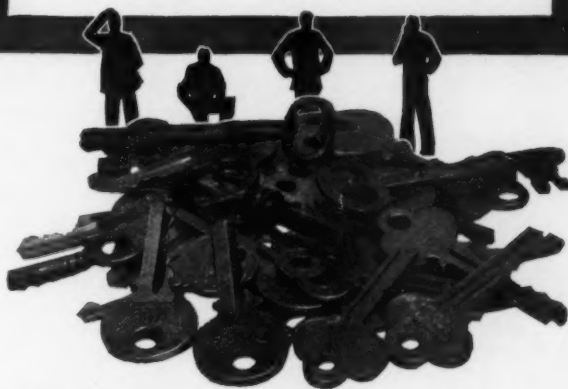
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2120 Winchell Ave. Cincinnati, Ohio

**WITT BETTER
WITT CANS**

News of the Month

Eastman to Build \$1,000,000 Dental Clinic in Paris

George Eastman, millionaire kodak manufacturer of Rochester, has offered \$1,000,000 to the city of Paris, France, for the construction of a dental clinic for pupils under sixteen years of age.

The only condition attached to the gift is that the building will resemble as closely as possible the model Eastman dispensary of Rochester, N. Y. The need for such a development makes the offer all the more acceptable and municipal officials were enthusiastic in their praise of Eastman's generosity.

A similar gift was recently made to the Italian government and several Eastman dispensaries already have been built in London.

Illinois Women's College Changes Name

The name of Illinois Women's College, Jacksonville, Ill., has been changed to McMurray College for Women, in honor of Mr. and Mrs. James E. McMurray who gave \$300,000 to the school for the construction of two new buildings.

It has been provided that when the new name is written for a period of ten years, the old name shall be placed in parentheses.

Battle Creek, Mich., Board Buys Future School Site

The board of education, Battle Creek, Mich., has recently bought eleven acres of land to be held for use as a site for Northwestern Junior High School, a project of the future. The land, which was the property of Battle Creek College, and has been used as an athletic field both by the college and by the public schools, was purchased in keeping with the board's policy of buying property that will eventually be needed by the school system.

Education Seeks Representation at Radio Conference

Request that educational interests be represented on the American committee to formulate proposals of this country respecting radio for consideration at the next International Radio Conference to be held in Madrid in 1932, was made November 21 by representatives of the National Education Association at a meeting of the preparatory committee called by the Federal Radio Commission.

Joy Elmer Morgan, of the association, declared that educational interests objected to having commercial companies represent them at the international convention,

because it is likely they will formulate recommendations which do not properly care for the needs of the educators. He pointed out that the advisory committee on education created by the Secretary of the Interior recommended recently that 15 per cent of all broadcasting facilities be made available for the use of education.

At the international conference, the question of short wave relay broadcasting is to be considered, continued Mr. Morgan, and is of vital import to education. He said that because of the present international convention, relay broadcasting and rebroadcasting of educational programs, as well as other programs, are restricted.

The chairman of the commission, Maj. Gen. Charles McK. Saltzman, in his capacity as chairman of the preparatory committee, declared that the request for representation should be taken up with the appropriate subcommittee of the general preparatory organization, and through that agency, presented to the full committee.

General Saltzman called the meeting at the request of the Department of State "to initiate a preliminary study of the provisions of the International Radio Convention and Regulations of 1927, with a view of studying what proposals this Government should make at Madrid."

Progressive Association to Meet in Detroit, February 26-28

The Progressive Education Association will hold its eleventh annual convention in Detroit, February 26-28, 1931, following the meeting of the Department of Superintendence, National Education Association, in that city. The Progressive Education Association and the New Education Fellowship of Europe have affiliated for the purpose of making available the resources of both organizations in spreading knowledge of educational advancement.

Delaware to Consider Teachers' Retirement Bill

Following the endorsement of the Delaware state teachers' associations of a proposal to create a teachers' retirement fund, the committee appointed by the state board of education to consider the matter has announced that it will recommend a teachers' retirement bill to the 1931 legislature providing that the annuities be written by a private insurance company instead of a state commission.

The committee is composed of H. Fletcher Brown, a member of the state board of education, chairman; Charles H. Grantland, secretary of state, representing the state; Prof. John Shilling, assistant superintendent of public instruction; Dr. Walter L. Hullihen, president, University of Delaware, and Ellen Samworth, representing the teachers' association of Wilmington.

The committee has had before it cost data submitted by three life insurance companies, it was stated. The recommendation of the committee will be that the cost be divided equally between the state and the teachers.

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—Abraham Lincoln.

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News of the Month

New York Plans Three New Schools All of Similar Design

Three new high schools to be constructed in New York City shortly are to be built alike and will follow a design for a model type of high school building. The new design is by Walter C. Martin, architect of the board and superintendent of school buildings.

The Georgian style will be followed. The first story is of rusticated limestone, forming a base for a three-story pilaster and rusticated stone pier treatment. The walls between the stone pilasters and piers are to be of Colonial handmade red brick. The crowning member of the design is a richly ornamented cornice and balustrade. The main entrance is marked by three rusticated arches, above which is a portico extending through the upper three stories and surmounted by a pediment with a sculptured tympanus. The pilasters of this portico are fluted.

The new buildings that will follow this design are the Franklin K. Lane High School, the Woodrow Wilson High School and the Lafayette High School.

Competitive Buying Saves Boston Close to Million

Under the new plan of competitive buying recently inaugurated by the board of commissioners of school buildings, Boston, there will be turned back to the school committee at the end of the year at least \$300,000 saved in repairs alone, according to a recent release. On buildings completed and in process of completion, there is available \$565,000 to turn back to the school committee.

The chairman of the board was reported as saying that there should be available to return to the school committee at least \$865,000. Allowance was made, during the ten months that the board has been functioning, for the payment of a \$65,000 previous deficit and the \$23,000 a year rental of quarters for the department of school buildings.

Ninety Ohio Communities to Benefit by Evening Farm Courses

Plans are under way for 137 part-time and evening courses in vocational agriculture to be held in ninety communities in Ohio according to reports from teachers received to date by the division of vocational agriculture of the state department of education.

These courses are organized by high school agriculture teachers for older farm boys who have dropped out of regular school work and for adult farmers. In addition to the class work which consists of ten or more sessions, pupils arrange to carry out home projects or other supervised farm practice work under the direction of the teachers.

One hundred and twenty-two teachers enrolled 3,000 farm boys and adult farmers in 143 such courses last year. Poultry courses were the most popular, a total of twenty-six being held. There were seventeen courses in farm management, twelve in dairying, ten in farm crops, ten in soils, nine in tractor, seven in swine, eight in farm shops and six in farm machinery, as well as others in various subjects.

A diploma is awarded to those who satisfactorily complete four years of work in these courses.

Large English Benedictine School for America Is Begun

When the first shovelful of earth was lifted in a simple ceremony in Newport, R. I., recently, there was begun the construction of the first building of the first large English Benedictine school in America. The school is to be known as the Priory School.

This building, as well as the others to be constructed, will be done in simplified Gothic, the material being red brick and sandstone. The work is proceeding rapidly and it is expected that the building will be ready for use by next fall. The present structure is to be the northwestern member of a series of four similar buildings, all to be grouped around the same quadrangle. It is designed as a complete unit for the lodging of forty boys.

New Dormitory at Colby School to Cost \$45,000

Construction work is to start shortly on a new \$45,000 dormitory at the Colby School for Girls, New London, N. H.

The building will be fire resistive, colonial in design to respond with the other buildings on the Colby campus. This is the second new dormitory to be built within the last year, McKean Hall having been completed last year.

Since the school reorganized two years ago as a preparatory school and junior college for girls, the enrollment has increased until now more than 200 girls are enrolled.

Milwaukee Plans School Building to Aid Unemployment

Extensive school building and improvement from now through 1931 as an aid toward relieving unemployment in Milwaukee is to be recommended by the Milwaukee School Board's building committee, according to a recent news release. The committee has already discussed methods under which the expenditure of about \$2,700,000 by the end of 1931 may be accomplished without disrupting the school planning and location program.



Seven grown up men test the capacity of a Happy Builders truck

HAPPY BUILDERS

—the most practical project blocks

ONLY Happy Builders can demonstrate such absolute rigidity and safety as are shown above. Think of the genuine possibilities in such sturdy project blocks!

Instructive, easily manipulated blocks which can be used in all sorts of building projects—that's why Happy Builders are so practical and popular. They meet modern kindergarten conditions squarely. They provide project material in which the dullest child will take a lively interest, and of which the keenest-witted will never become tired.

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Many large educational systems are using Happy Builders. Your teachers will find in them both inspiration and relief. Three sets to select from.

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APPLETON WOOD PRODUCTS CO.
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The "BUFFALO" Chopper

*will save money
in YOUR kitchen!*

A MODERN
MACHINE
for Modern
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Model 111-A (right)
has removable bowl.
Knives are never
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Knives can be stopped
while bowl continues
to revolve, making it
100 per cent SAFE to
remove food from the
bowl, and giving per-
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food being chopped.
SAFEST CHOPPER
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CHOPPED foods can be produced BETTER in a "BUFFALO" Chopper because it cuts every particle of food uniformly FINE, without mashing or squeezing out the nutritious juices.

Waste is reduced to a minimum because every bit of food you prepare can be used—and converted into delicious, palatable dishes.

All the work of turning out the tastiest hamburger steak, cutlets, meats and vegetables for soups, salads, dressings, etc., can be finished by one person in a third less time than two or three people can do it by any other method.

As a result, the "BUFFALO" Chopper will save enough food, time and labor to pay for itself in a short while in any kitchen.

A SIZE FOR EVERY NEED!

THERE are four (4) sizes—and six (6) models—of "BUFFALO" Choppers, to suit the needs of every kitchen, from the largest to the smallest. It will pay you to investigate this machine. Write for catalog and prices.

"BUFFALO" MEAT AND FOOD CHOPPER

JOHN E. SMITH'S SONS CO.
50 BROADWAY BUFFALO, N. Y.

Also manufacturers of the famous
"BUFFALO" Bread Slicer

News of the Month

University of Chicago Plans Large Building Program

Approximately \$8,500,000 will be spent during 1931 for new buildings at the University of Chicago, and will be one of the university's contributions to the relief of unemployment.

Five projects are under way: a graduate building for the school of education; the Orient Institute building; a group of dormitory units; an international house for foreign students; an athletic field house. In addition to these five, the university will begin work during the year on an art building and it is possible that several other buildings will also be started during 1931. These projects are a part of a program of physical expansion under which the university will have spent by the close of 1931 approximately \$30,000,000 in seven years.

Endowment Fund Established for Consolidated School

Arthur F. Keeney, Chicago, former resident of the Woolmarket District, Gulfport, Miss., has established an endowment fund of \$1,000 for the Woolmarket Consolidated School, which was built recently at a cost of \$25,000. The interest from the fund will be used to purchase prizes for the "best achieving pupils." Mr. Keeney, who has been for several years a great friend of the Woolmarket school, the first consolidated school in Mississippi, had previously given \$1,000 for beautifying the school grounds.

N. E. A. Committee to Help Unemployed Teachers

A committee to study and relieve unemployment among the teachers of this country has recently been appointed by Willis A. Sutton, president, National Education Association. The members of the committee are: W. C. Bagley, Columbia University, chairman; William John Cooper, United States commissioner of education, and Susan M. Dorsey, Los Angeles.

Rosenwald Fund Completes Its Five Thousandth School

Greenbrier, Va., is the location of the five thousandth Rosenwald School, which was dedicated recently. This school is a landmark in a system of aid by the Julius Rosenwald Fund to the building of Negro public schools, which has now covered 830 counties of fourteen Southern states. These 5,000 schools accommodate more than 600,000 pupils, with 14,000 teachers.

The sum of \$25,000,000 has gone into the buildings, of which \$4,000,000 was given by the fund, another \$4,000,000 in contributions of Negroes. One million dollars was given by individual white friends. The remaining \$16,000,000 came from public tax funds, and the entire maintenance is a public charge, since all of the 5,000 schools are a part of the public school system.

Two New Schools Dedicated at Needham, Mass.

Needham, Mass., recently dedicated two new schools, a \$525,000 high school and a \$92,000 elementary school. Both are of Colonial design to harmonize with the town hall and public library.

The high school is equipped for 550 pupils, but it can accommodate 700 pupils if necessary. The building is at present shaped like a T. When two wings are added to increase the capacity to 1,000 pupils, it will be shaped like an E. The present construction includes complete gymnasium and assembly hall and laboratories for future additions, which will consist of classrooms only. The central portion of the upper floor is occupied by an unusually large library.

Citizenship School Opens Second Year in Fort Worth

The second year of the citizenship school of Fort Worth, Tex., opened on November 19. The school, conducted for persons contemplating naturalization as United States citizens, meets twice a week throughout the year. It is free. Classes are taught by an instructor in the public school system.

Arrangements have been made whereby credit in the classes will be recognized when the Federal district judge conducts naturalization hearings and examines applicants for citizenship. Textbooks are provided by the naturalization bureau of the Department of Labor.

Research Studies in Education Are Available

A bibliography of research studies in education for 1928-29 has just been published by the United States Office of Education and is now available, according to information disclosed by the editorial division.

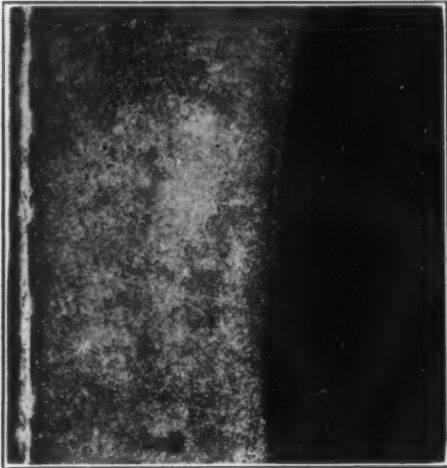
Prepared in the library division of the office, the list of educational studies covers 3,065 investigations undertaken by 317 research agencies. Included are masters' and doctors' theses and similar research activities.

Like the two preceding bibliographies listing research studies in 1927 and 1928, this bibliography is annotated to explain briefly the contents.

A copy may be procured from the Government Printing Office for forty-five cents.

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Are They Rough, Gray, Shiny, Beginning to Peel?



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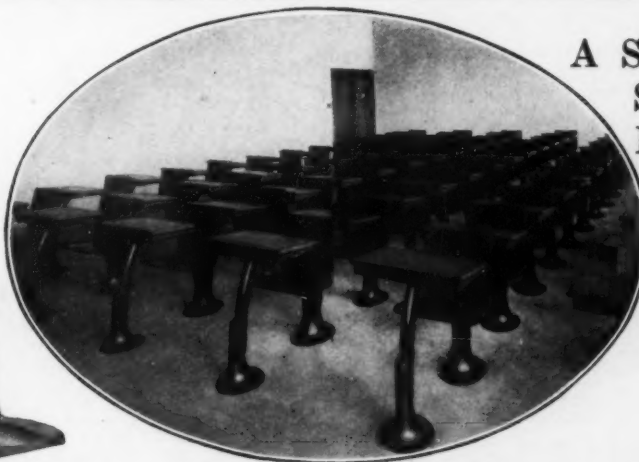
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with saddle seat
and two curved
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NATIONAL CHAIRS
deep-saddle seat, full
boxed construction, form
fitting back—selected
quartered oak—golden
oak finish.



And with the additional National Service of advising as to correct lay-out, seat arrangement and best adapted desk and seat style for each room, more indeed is obtained from National than merely the purchase of school furniture equipment.

In the Educational Field

E. C. ROBERTS, director of the academic department, Tuskegee Institute, Tuskegee, Ala., died recently. He had been with the institution for the last thirty years.

HENRY ROBERTS, JR., district superintendent of schools, Philadelphia, died recently.

ARTHUR O. BRIDGMAN, principal, Dolgeville Public Schools, Dolgeville, N. Y., has resigned because of ill health.

RUSSELL T. BACKUS, superintendent of school buildings and grounds, Trenton, N. J., died recently.

WILLIAM CORBETT CEARLEY, superintendent, Tallahatchie Consolidated High School, Oxford, Miss., died recently following an operation.

E. A. ELLIOTT has assumed his duties as superintendent of schools, Joplin, Mo. WADE FOWLER, Hiawatha, Kan., fills the vacancy left by MR. ELLIOTT at Nevada, Mo., where he had been superintendent for the last two years.

R. E. GORHAM is the new superintendent of schools, Stewart County, Tennessee. MR. GORHAM succeeds W. C. HOWELL, resigned.

JAMES L. DORAN is the new superintendent of schools, New Albany, Ohio.

DR. BEN G. GRAHAM, acting superintendent of schools, Pittsburgh, since the death of William M. Davidson, has been named superintendent.

DR. KENNETH IRVING BROWN was recently installed as president of Hiram College, Hiram, Ohio.

DR. RAY LYMAN WILBUR's leave of absence as president of Stanford University to continue his work as Secretary of the Interior has been extended for a year by the trustees.

FRANK A. KECK is now serving his first term as superintendent of schools, Bloomfield, Ohio.

R. B. STEWART, Sparta, Mo., will assume the superintendent's office at Bridgewater, Iowa, until J. S. Marquis, superintendent of schools, who is now ill, has recovered his health.

B. E. WORKMAN has entered upon his duties as superintendent of schools, Chesterhill, Ohio.

DR. ROBERT GORDON SPROUL has been formally installed as president of the University of California.

F. V. MYGRANT is the new superintendent of schools, West Mansfield, Ohio.

DR. FRANCIS PENDLETON GAINES is the newly installed president of Washington and Lee University.

J. B. HARTMAN, formerly superintendent of schools, Ridgeway, Ohio, now occupies a similar position at Versailles, Ohio.

VIRGIL RUEGSEGGER succeeds LEROY BELL as county school commissioner for Michigan. MR. RUEGSEGGER has been principal of the Mecosta, Mich., village school for the last three years. MR. BELL has taken up work at the Michigan State College.

CLARENCE F. ROSS, dean of men and registrar, Allegheny College, Meadville, Pa., has been chosen acting president of the college to serve until a new president has been chosen to succeed JAMES BEEBE, resigned.

CHARLES W. WIGGINS has been elected district superintendent of the grammar schools, Healdsburg, Calif.

IRWIN T. CATHARINE has been appointed superintendent of school buildings, Philadelphia, to succeed JOHN D. CASSELL, retired.

DR. P. DAVIS is the new city superintendent of the school department, Santa Ana, Calif.

CHESTER A. MOODY, who has been superintendent of schools, Arlington, Mass., for the last nine years, has resigned, his resignation to take effect at the end of the present school year.

E. A. ELLIOTT has assumed his duties as superintendent of schools, Burlingame, Calif., has resigned to accept the city superintendency at San Bernardino, Calif., succeeding RAY HOLBROOK who becomes superintendent of schools at Santa Cruz, Calif. LESTER EARL HENDERSON has taken MR. ADAMS' place at Burlingame.

ARVIE ELDRED has resigned as superintendent of schools, Troy, N. Y., and GEORGE H. KRUG, head of the department of mathematics in the high school, succeeds him. MR. ELDRED becomes executive secretary of the New York State Teachers' Association.

J. C. TAYLOR, for thirty-three years superintendent of schools, Lackawanna County, Pa., died recently.

JOSEPH W. JOHNSON, for fifty-one years a principal in the city school department, Sacramento, Calif., has retired.

MERLE K. METZLER has resigned as superintendent of schools, Reese, Mich.

HARRY A. SKINNER, for the past six years supervisor of attendance, Imperial County, Calif., becomes supervisor of rural schools, Santa Barbara County.

JOHN KANTNER, principal of the public schools of East Detroit, Mich., has been named superintendent, succeeding FRED SANBORN who has accepted an educational position in Washington, D. C.

W. W. TRITT, assistant superintendent of schools, Los Angeles, died recently. He had been connected with the Los Angeles schools since 1895.

ARTHUR G. WADSWORTH, for twenty-seven years principal of the Russell Grammar School, Cambridge, Mass., died recently.

E. L. VAN DELLEN is the new district superintendent of the Ventura schools, Ventura, Calif. He was formerly district superintendent of the Salinas high school district.

THE REV. FLOYD W. NEASE, president, Eastern Nazarene College, Wollaston, Mass., died recently.

COL. GUIDO F. VERBECK, eldest son of the late BRIGGEN. WILLIAM VERBECK, has been elected head of the Manlius School, Manlius, N. Y., succeeding his father who died recently.

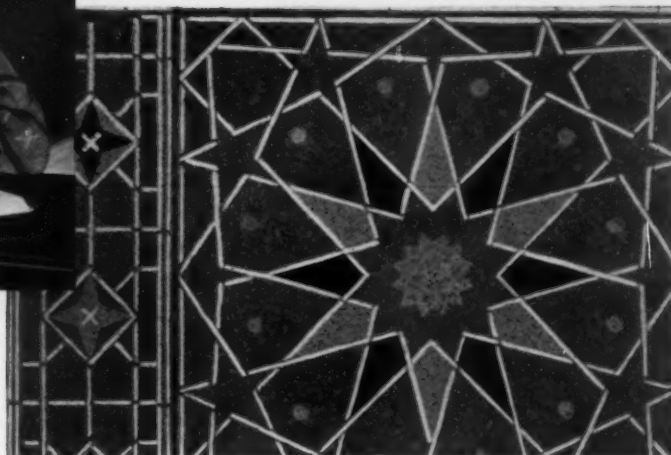
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"NOISE FOG" is the CAUSE.. of AFTERNOON FATIGUE



Above: Does teacher blame noise for this pupil's failure?

Right: Designs like this are easily applied to ceilings of Armstrong's Corkoustic.



FOOTSTEPS in the corridor, the bubbling of the drinking fountains, doors closing—noises so familiar you may not even notice them, fatigue immature minds. These sounds build up a reverberating "noise fog" that distracts attention, makes school-work difficult.

Armstrong's Corkoustic applied to walls and ceilings absorbs air-borne sounds, effectively muffles "noise fog." These strong panels of elastic cork are easy to install and blend well decoratively with school interiors. The natural color of Corkoustic is a soft brown, but designs and colors, if desired, can be produced with cold-water paints and stencils.

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Corkoustic also provides efficient insulation, preserving the comfort of your school-rooms. Cork lined rooms are warmer in winter and cooler in summer. There is a welcome saving in fuel, for heat is not dissipated through walls protected with Corkoustic.

Book of Sound-facts sent free

All of the interesting facts about Armstrong's Corkoustic are presented in the book "Acoustical Correction." A copy will be sent you upon request without charge. Address Armstrong Cork & Insulation Company, 939 Concord Street, Lancaster, Pennsylvania.

Armstrong's Corkoustic

the sound-quieting and acoustical treatment for schools



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Increase
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receipts
—every
seat is a
good one.



Spectators
can see
every
play with
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Banks.

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Bloomington, Ind.

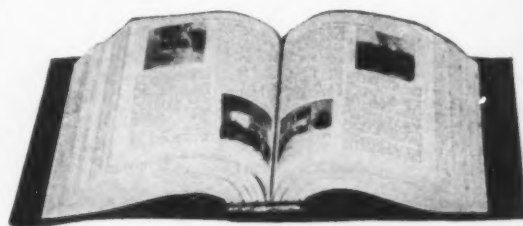
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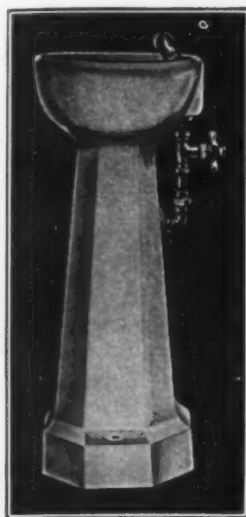
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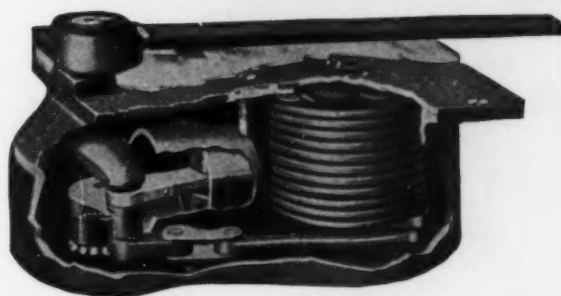
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In the January Issue

The opening article in January, "Giving Battle to High Interest Money Lenders," will expose some of the methods of the loan shark and present valuable advice for teachers desiring to borrow small sums of money.

Those who plan to attend the Department of Superintendence meeting in February will find the article,

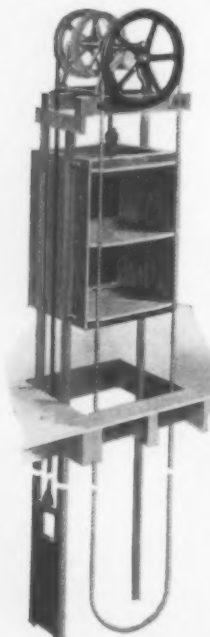
"Detroit the Dynamic," which details the wonders of America's fourth largest city, of great interest.

"Safeguarding the Pupil's Future With Mental Hygiene," tells how the schools are aiding in preventing and treating mental illnesses and thus preparing their pupils more ably to meet the future.

Important departmental articles in January will be "Securing Better Teachers for Rural Schools" and "Translating Instructional Needs Into Physical Facilities," which will be of value to rural educators and to those contemplating building.

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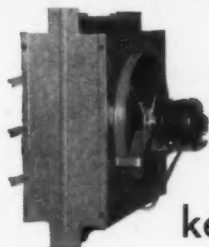
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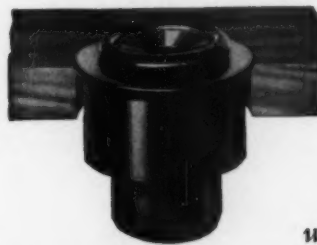
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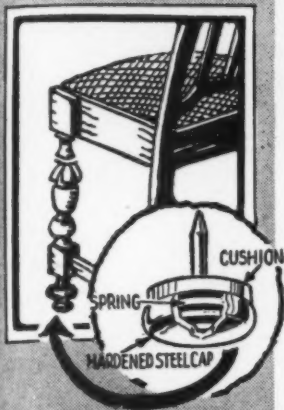
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Modern Schools Demand

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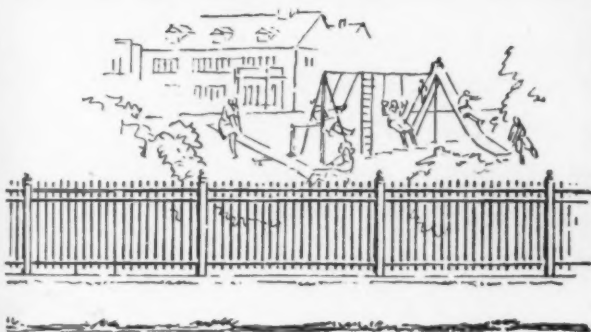
When you close the door of a classroom, all foreign noise is instantly eliminated and the pupil can concentrate one hundred per cent, protected from the noise that comes through ordinary doors.

Modern schools have adopted the *Hamlin Sound-Proof, Edge-Tight Door* as standard equipment. It deadens sound, prevents draft, open cracks or crevices and the room is as quiet as human ingenuity can make it.

Write for the facts on this modern Hamlin method of sound-deadening and learn how easily this scientific method can be applied in your school.

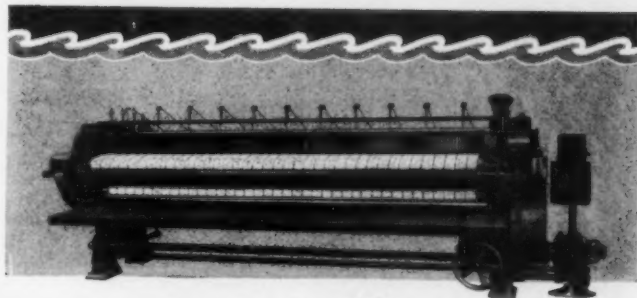
HAMLIN
SOUND-PROOF DOORS
and folding partitions

IRVING HAMLIN, Manufacturer
1501 Lincoln St., Evanston, Ill.



YOU will find that a Stewart Iron Fence—with its extra value in extreme durability as well as appearance—is the most practical of school fence enclosures. For comparison, let us send you our *Illustrated Catalog* which shows both Iron Picket and Chain Link Fences. Address—The Stewart Iron Works Co., Inc., 616 Stewart Block, Cincinnati, Ohio.

Stewart
FENCES



This Troy Standard Two Roll Flatwork Ironer has same side feed and delivery; cuts ironing labor costs in half.

Known for its ironing

When you specify a Troy Flatwork Ironer, you get a machine that can be counted on to turn out flatwork with a quality finish . . . and keep on doing so year after year.

A Troy Ironer is the perfected product of Troy's experienced laundry engineers. It embodies a balanced combination of all the factors that go to make up good ironing . . . factors such as the right ironing principle, length of travel, heating surface, pressure surfaces, drive arrangement, floor space and speed.

Choosing a Troy is playing safe.


TROY LAUNDRY MACHINERY CO., INC.

Chicago - New York City - San Francisco - Seattle - Boston - Los Angeles
JAMES ARMSTRONG & CO., Ltd., European Agents; London, Berlin, Zurich.
Factories: East Moline, Ill., U. S. A.

TROY
LAUNDRY MACHINERY



Since 1879—The World's Pioneer Manufacturer of Laundry Machinery


ALL SIZES AND STYLES OF TUMBLERS

Immense warehouse facilities enable us to carry more than one thousand carloads of finished glassware at all times. Shipments can be made promptly upon receipt of customer's order. Quantity production plus ample warehouse and shipping facilities constitute  service.

No. 12 of a series of advertisements

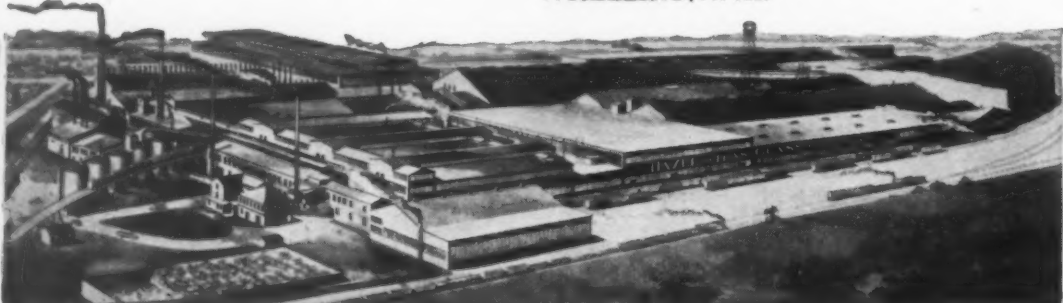


A  TUMBLERS are strongly constructed and clear in color. Glazed edges and smooth bottoms are other features. Our immense production and 100% automatic equipment enable you to purchase  TUMBLERS at no increase in price over other tumblers.

Your Glassware Supply House will serve you with samples and prices of
 TESTED TUMBLERS

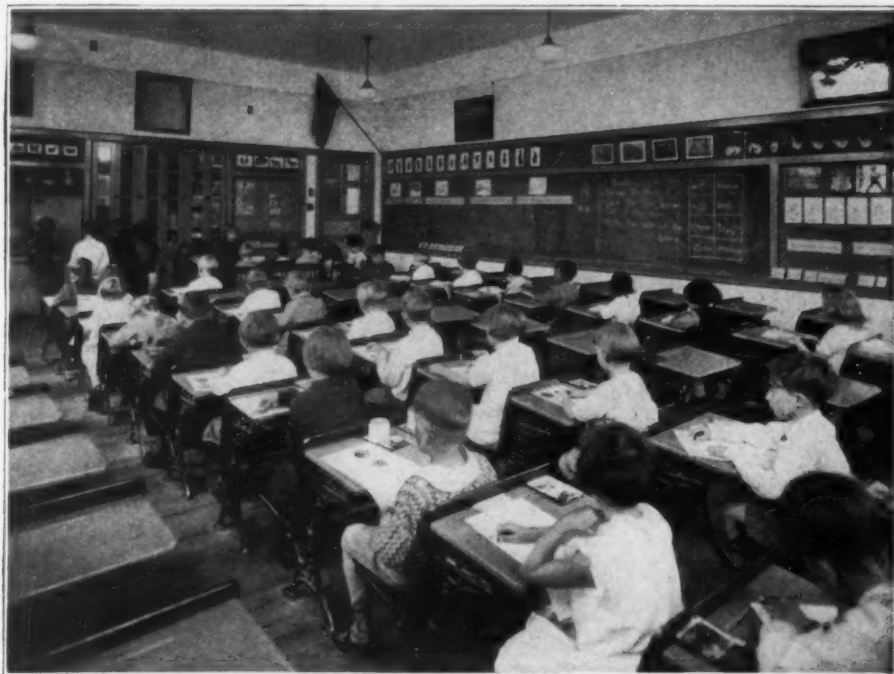
THEY ARE GUARANTEED TO OUTLAST THEM ALL

HAZEL-ATLAS GLASS CO.
WHEELING, W. VA.



WORLD'S · LARGEST · TUMBLER · MANUFACTURERS

Painted walls and surfaces need Semdac Liquid Gloss



THE oils and gums which enter into the composition of paints and varnishes are affected by the air. Such surfaces are likely to crack, peel, grow dull. Semdac Liquid Gloss is the preservative and cleaner ideally suited to the school. Applied to painted and varnished areas it restores the original luster, safeguards against weathering action and protects against the marks and smudges of the careless child.

Semdac is economical in cost, and—best of all—its action, both as a clean-

ser and as a polish, requires a minimum of effort. In use it demands no excess rubbing. It spreads a gloss immediately, and it seals all cracks against further deterioration.

Schools everywhere are enthusiastic in their praise of Semdac Liquid Gloss. Its universal application brings economy and cuts down costs. While ordinary materials SCOUR the surface, Semdac PRESERVES it.

Sold in containers for all requirements: barrels, half barrels, five gallon, gallon, half gallon, quart and pint cans.



SEMDAC FURNITURE DRESSING

Semdac Furniture Dressing is an ideal polish for the finer furniture. It leaves a brilliant durable lustre. Merely applying it removes the dirt. Gentle rubbing with one or more clean, dry cloths brings out the rich, high lustre.

STANDARD OIL COMPANY
(Indiana)

910 S. Michigan Avenue Chicago, Ill.

1906

SEMDAC

LIQUID GLOSS ... FURNITURE DRESSING

STANDARD OIL COMPANY (Indiana)
910 South Michigan Avenue, Chicago

I am interested in receiving

- ☐ Copy of Semdac Liquid Gloss Booklet.
☐ Prices of Semdac Liquid Gloss.

Name.....Address.....

City.....State.....



SAFE, DURABLE STAIRS WITH WOOSTER TREADS

When Wooster Safe-Groove Treads are installed on new or old stairways there is no more worry over slipping accidents or wear for many years.

Correctly designed and made of the proper materials, they are easiest to install, hardest to wear out, safest to walk on.

WOOSTER PRODUCTS INC.
WOOSTER, OHIO

This Curtain Track always operates perfectly



The Vallen All-Steel, Noiseless Curtain Track was designed specifically for curtain carrying purposes and embodies exclusive features of design that make it the most practical track for school or auditorium use.

It can be easily installed by inexperienced men. Requires no maintenance. Always operates perfectly. Fifteen years of constant use in leading theatres of the world. Can be supplied for manual or complete electrical operation. Vallen will gladly tell you why this track is economical.

Vallen Electrical Co., Inc.
225 Bluff St. Akron, Ohio

VALLEN
DARES TO GUARANTEE



STRONGER THAN STEEL!



Bentwood
**FOLDING
CHAIRS**
*for Every
Purpose!*

*for Hotels, Schools,
Auditoriums*

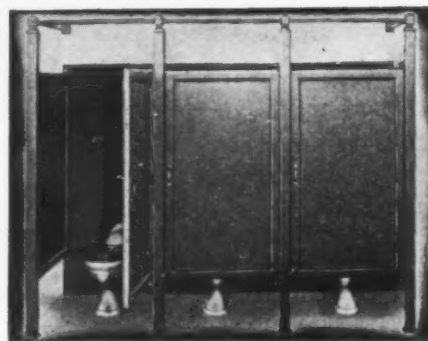
**Also PRESS-TOE LOCK
FOLDING CHAIRS**

Neat, Strong, Long Lived

Write for Bulletin



LOUIS RASTETTER & SONS CO.
1404 WALL ST., FORT WAYNE, IND.



For Toilet, Shower and Dressing Rooms

EBCO STEEL PARTITIONS

100% Steel . . . copper bearing to resist rust . . . with and without doors . . . easy and economical to install . . . can be supplied in any number of units desired. Installed in leading schools, colleges, factories and institutions everywhere.

"EBCO"

A HALLMARK OF QUALITY

EBCO installations are found in many important schools, public buildings and industrial plants everywhere.

THE D. A. EBINGER SANITARY MFG. CO.
401 W. Town St. Columbus, Ohio

*Manufacturers also of Ventilated Urinals, Closets, Wash
Fountains and Drinking Fountains—ice and electrical*

Get Ready for 1931

Time now to investigate your blackboard needs for the coming year . . . time to make plans and get full information.

Decide on VALLEYCO BLACKBOARD . . . the most economical and longest-lasting blackboard on the market.

CINOPLATE

Grainless; knotless; waterproof. Specially treated wood.

In
3
Grades

CINOBESTOS

Long asbestos fibre and Portland cement. Built to endure.

CINOBOARD

Specially made wood fibre; kiln cured.

*Economical
Permanent
Guaranteed*

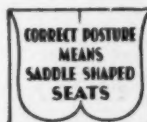
*Moisture-
proof
Easily
installed*

THE VALLEYCO CO., Inc.
116-118 E. Water St. Cincinnati, Ohio, U. S. A.

Why



Royal steel construction, glider feet and posture design have created a new accepted standard for the movable desk-type school seats and folding chairs.



ROYAL METAL
Manufacturing Company
1138 So. Michigan Boulevard
CHICAGO

ROYAL Lifetime Chairs have been favored in 1930 by some of the largest schools.

The reason why Royal Movable Desks and Folding Chairs, with comparatively new construction features, should be so quickly accepted IS—that although often costing a few cents more, the appearance, durability and workmanship are quickly sensed when comparisons are made.



A New WAYNE Sectional Steel GRANDSTAND

The Tye "E"

*To Sell for as Low
as \$1.50 per Seat*

for stands having a few rows, and only slightly higher for stands having a larger number of rows.

The Type E design contains exclusive features never before incorporated in a stand selling at such low prices.

Send now for complete information

Wayne Iron Works

Largest Manufacturers of Portable Steel Stands
WAYNE, PENNA.

"INTER-TWILL" Window Shades for SCHOOLS

Fulfill all requirements

Specify—"INTER-TWILL" because . . . there are more years of service in these window shades. It is a TWILL woven fabric of exceptional strength. "Inter-twill" shades are washable.

If total exclusion of light is desired, specify Interstate "NO-LITE" Shade Cloth. Shadowless and light-proof in all colors including light colors and white.

Made in the color tone of your choosing

Interstate Shade Cloth Co.
HOBOKEN and NEW JERSEY

The Lapsley-Interstate Shade Cloth Co.
Baltimore Maryland

THE HOMESTEAD at Hot Springs, Virginia, offers the ideal resort for the school official. Located amid mountain scenery of unusual magnificence, it extends the benefits of an invigorating climate, with every facility for recreation and for recuperation, including golf, horseback riding, and radioactive mineral waters.



THE HOMESTEAD, in its appointments and service, its clientele and management, will be found equal to the best of European Spas. School officials are invited to correspond with the Resident Manager for more detailed information. An illustrated brochure, "Virginia Hot Springs", will be sent on request. Write for it today.

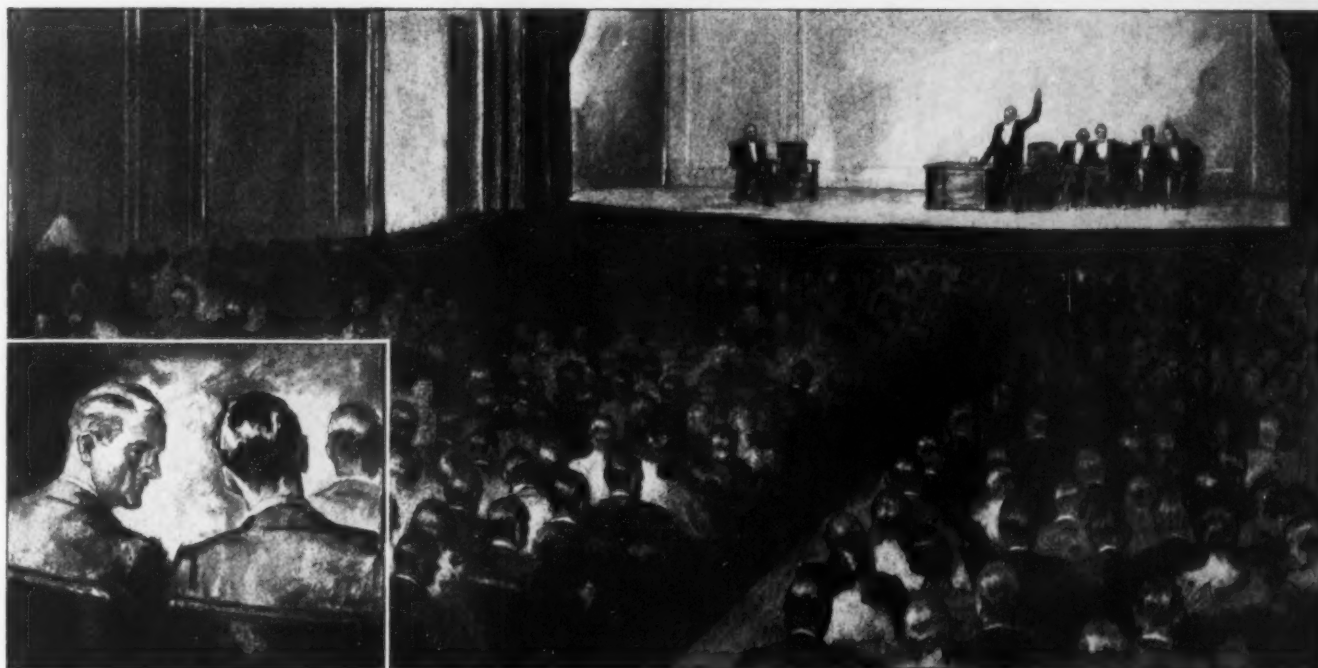
THE HOMESTEAD

Christian S. Andersen, *Resident Manager*

HOT SPRINGS, VA.

Booking Offices: The RITZ-CARLTON HOTEL, New York City

The RITZ-CARLTON HOTEL, Philadelphia

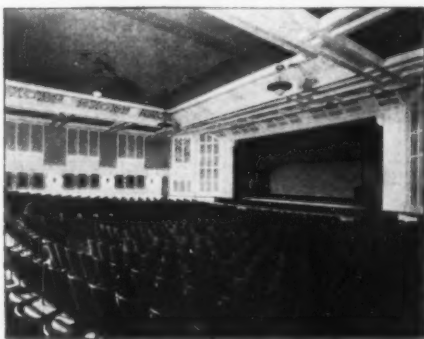


"I can't understand a word!"

IS THIS YOUR ASSEMBLY HALL?

THERE is no noisy reverberation, no jumble of meaningless sound, in school auditoriums treated with Acousti-Celotex.

Words reach every listener—even those in the back rows—as clear and clean-cut as they left the lips of the speaker.



Acousti-Celotex in the ceiling of the Great Falls High School, Great Falls, Mont., quickly absorbs reverberation, assuring ideal hearing conditions.

Acousti-Celotex, when applied to auditorium ceilings, absorbs lingering echoes, subdues noisy reverberation—making it a pleasure to listen to lectures and concerts.

This remarkable material also absorbs disturbing classroom noises. Quiets the racket in corridors, kitchens, manual training rooms. Raises the efficiency of the entire student body.

And Acousti-Celotex adds beauty to ceilings. Its natural color is a pleasing buff, but it may be stenciled, painted and repainted to conform with any decorative scheme, without loss of acoustical value.

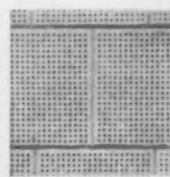
No remodeling is necessary when Acousti-Celotex is installed. It is applied directly to ceilings or walls. Acousti-Celotex is durable and permanent. It comes in single, finished units

which are quickly installed in either old or new buildings.

Acousti-Celotex is sold and installed by approved contractors who maintain engineering staffs trained in acoustical problems. They will gladly analyze your problems at no cost or obligation. Use the coupon.

The Celotex Company, 919 North Michigan Avenue, Chicago, Illinois. In Canada: Alexander Murray & Company, Ltd., Montreal. Sales distributors throughout the World.

The deep perforations in Acousti-Celotex serve as channels for carrying sound waves into the fibrous interior. This feature permits painting and repainting without loss of acoustical efficiency.



N.S.—12-30

ACOUSTI-CELOTEX SERVICE

Fill in and mail to the Celotex Company, 919 North Michigan Avenue, Chicago, Illinois, for the appointment of an engineer to analyze, at no obligation, your acoustical problems.

Name.....
School.....
Street.....
Town..... State.....

ACOUSTI-CELOTEX

FOR LESS NOISE—BETTER HEARING

The words Celotex and Acousti-Celotex (Reg. U. S. Pat. Off.) are the trademarks of and indicate manufacture by The Celotex Company

FLUSHWOOD

(PATENTED)

The Door Choice of Experienced School Building Architects and Builders

Practical men, who realize fully the many qualities necessary in a successful school door, have come to accept Flushwood as the standard of comparison.

It combines all the outstanding features necessary in a school door. Yet the cost is no more than that of the ordinary door which can never give complete satisfaction.

The new Flushwood Catalog tells the complete story of this remarkable door and also illustrates in full color some of the most popular designs.

A copy will be promptly mailed on request. Write the office nearest you.

MORGAN WOODWORK ORGANIZATION

MORGAN COMPANY

Oshkosh, Wis.

New York City

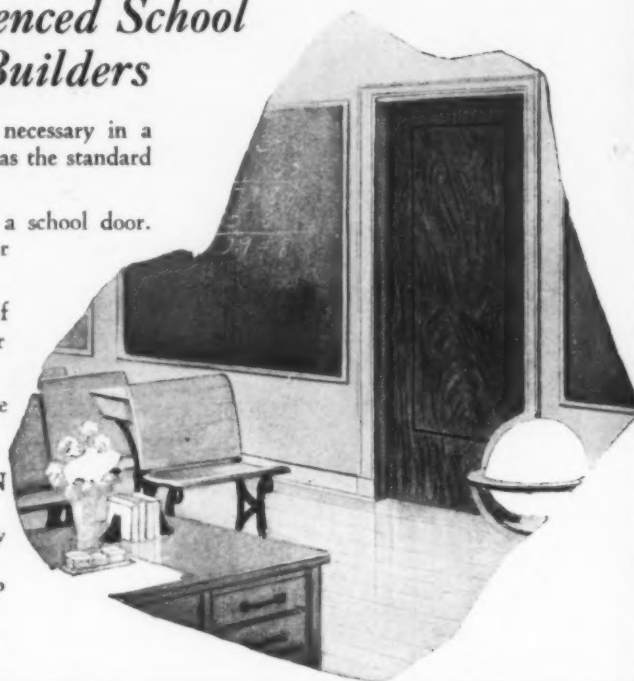
MORGAN SASH and DOOR CO.

Chicago

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MORGAN MILLWORK CO.

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New Haven



For Every School Infirmary and Hospital

A COPY of the 11th Edition of The Modern Hospital YEAR BOOK may now be reserved at the nominal price of \$1.00 for delivery early in 1931. This is the pre-publication offer extended today to those schools with infirmaries and hospitals which have essential need for this 900 page book. It is a complete guide to the problems of hospital planning, equipment, organization and purchasing—recognized throughout the hospital world as the most helpful and useful annual reference volume in existence. Send in your reservation order now and be assured of delivery.

The MODERN HOSPITAL PUBLISHING CO.

919 North Michigan, Chicago, Ill.

Scenery

ASBESTOS CURTAINS
VELOUR CURTAINS

and

*Stage scenery for your
Auditorium Stage*

Twenty years of experience in equipping High Schools has placed us in a position to know the particular requirements for your stage.

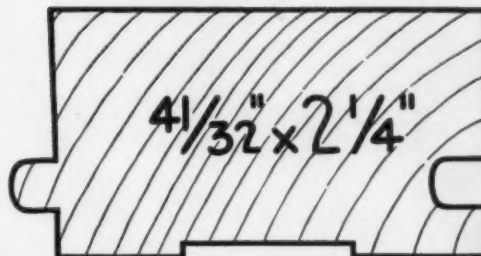
*Write us for further information or
request call from our representative*

Twin City Scenic Company

2819 Nicollet Ave.,
Minneapolis, Minn.

2310 Cass Ave.,
Detroit, Mich.

MAPLE FLOORING FOR SCHOOLS



The above flooring (illustration is actual size) is particularly adapted to GYMNASIUM and all HEAVY DUTY requirements.

ALL ROBBINS FLOORING is seasoned in the open air and then mechanically dried, insuring toughness and long life.

Specify **ROBBINS FLOORING**
FOR ALL SCHOOL PURPOSES

ROBBINS FLOORING CO.
RHINELANDER
WIS.



An Applicator Bottle furnished with our compliments in your own medicine cabinet will soon convince you that **MERCUROCHROME—220 SOLUBLE**

(dibrom-oxymercuri-fluorescein)

IS THE

Logical Successor to Tincture of Iodine FOR

First Aid Prophylactic and General Antiseptic Use

Mercurochrome stains as Iodine does, and it is the stain of Mercurochrome, as it is of Iodine, that shows just where and how effectively the germicide has been applied; it fixes the bactericidal agent in the field for a relatively permanent period which prolongs the asepsis or the sterilizing effect, and it provides for demonstrable penetration into the tissues beneath the superficial surfaces. Inasmuch as Mercurochrome is definitely proved an extremely efficient general antiseptic, it is only reasonable to consider it the successor to Iodine in this field, as it is free from the objectionable features of Iodine, for

MERCUROCHROME DOES NOT IRRITATE, BURN OR INJURE TISSUE

SELL YOURSELVES FIRST

**HYNSON, WESTCOTT
& DUNNING, INC.**

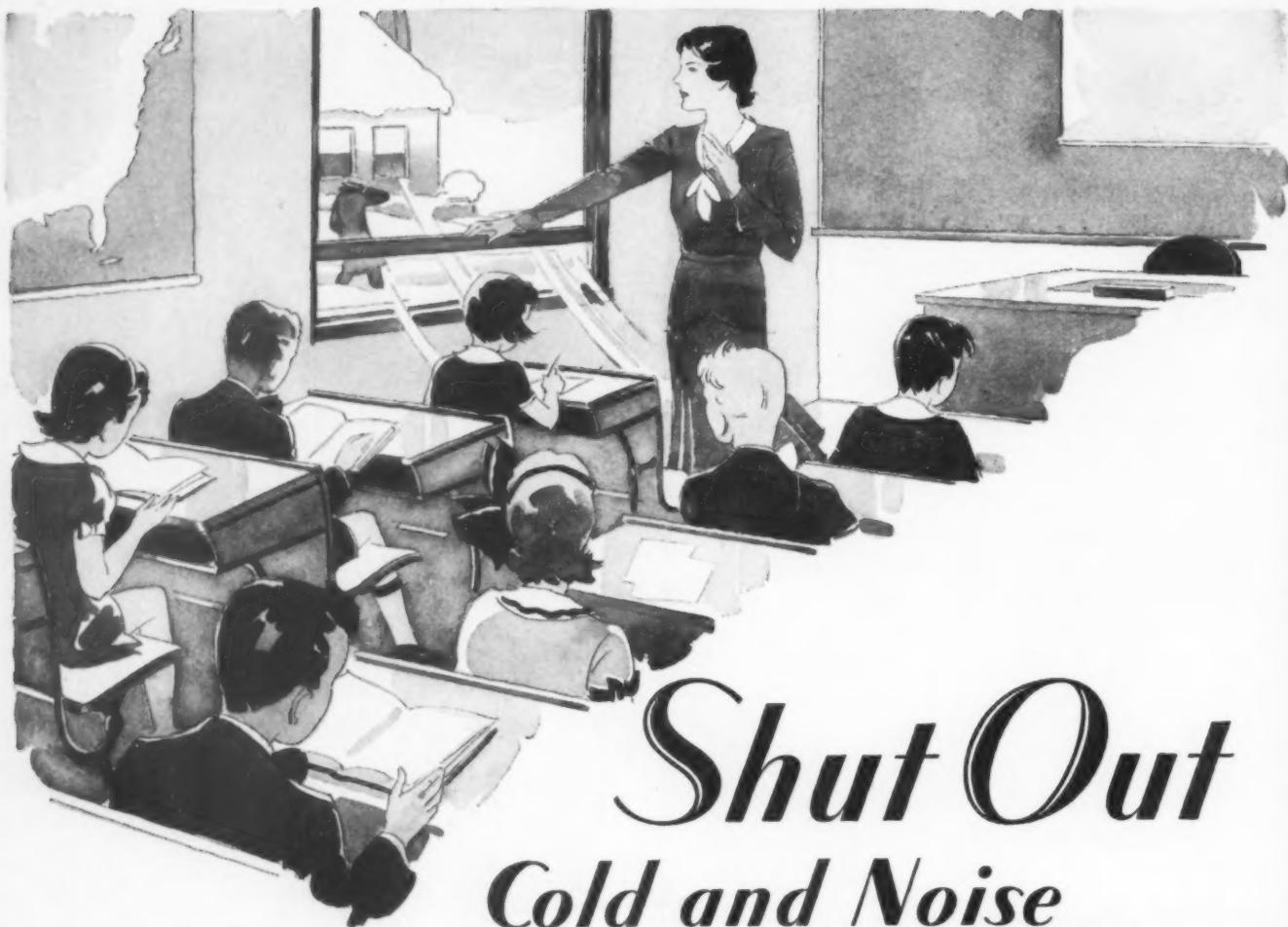
BALTIMORE, MD.

HYNSON, WESTCOTT & DUNNING, INC.
DEPT. N, BALTIMORE, MD.

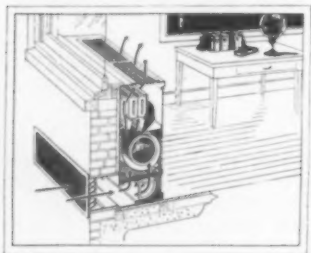
*Please send me Mercurochrome Applicator Bottle for
personal use.*

Name

Business Address



Shut Out Cold and Noise and Drafts...



OUTDOORS...2° below, with wet snow flying before a biting wind! Windows must be shut against the weather. They can be *kept* shut, if there are Sturtevant Unit Heater-Ventilators to keep the classroom comfortable and healthful.

In the morning, Sturtevant Unit Heater-Ventilators will warm up the classrooms quickly...much more quickly than direct radiation. Then during classes they will draw in outdoor air...filter it...temper it...and circulate it through the room...gently, quietly, thoroughly. Free from discomfort and distraction; teachers and students can do better work.

Throughout the country, schools both old and new have proved for themselves the advantages of Sturtevant Unit Heater-Ventilators. Full information will be sent you...for the asking...from our nearest office.

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Sturtevant Unit Heater-Ventilator

Reg. U. S. Pat. Off.

SUPPLIES OUTDOOR AIR ∞ FILTERED CLEAN ∞ AND TEMPERED

Protecting pupils' health and saving parents' money



The obligations that school boards owe to pupils and to tax-payers are both better served by such plumbing materials for school buildings as the *Expedio* closet.

Its thoroughly sanitary twice-fired vitreous china, kept clean by the powerful flush, resistant to acids, glistening for a lifetime, protects pupils' health. Its concealed water controlled flush valve guards against forgetfulness or roughness in flushing. Installed with Crane Hulbert fittings, twelve *Expedios* can be set in a row, without piercing the floor for each closet outlet, without metal floor sleeves, without rais-



Expedio Closet C 10276-A. With concealed "Water-Controlled" flushing valve

ing the floor to conceal drain pipe.

Throughout the Crane valve and fitting line, there are similarly ingenious improvements and precision in engineering which save installation expense . . . to an extent that often makes a complete Crane installation cost less than an inferior one.

Ask your architect and plumbing contractor. They'll tell you that Crane plumbing means a better building, a more lasting building, and a saving.



CRANE



CRANE CO., GENERAL OFFICES: 836 S. MICHIGAN AVE., CHICAGO

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Branches and Sales Offices in One Hundred and Ninety-six Cities

Building the coming men and women of America

The American school boys and girls of today will guide the destiny of their country tomorrow. . . . The school superintendents and teachers are, therefore, the producers of the nation's most important product; and the school room is the factory in which this work must be performed. . . . The photograph below was taken in 1924. Happy and healthy children have been coming from this room ever since, and will continue to come many years hence. It is equipped with Univent Ventilation.



NOTE the Univent—a machine which draws air directly from out-of-doors—cleans it—warms it to a comfortable temperature—and silently delivers it to every pupil in the room, with agreeable air motion, but without drafts.

In schools where the Univent is in operation, records show a notably high standard of attendance. Children work in an atmosphere conducive to health of body and mind. They are better able to concentrate—to grasp and retain the knowledge that will be so vital in future years.

In selecting the Univent system of ventilation, school executives are meeting their responsibility as guardians of the health and welfare of the children of their community. And in addition, they are carrying out their pledge to tax payers by making an investment in a ventilating system that effects great savings in operating and maintenance costs.

Before you place your sanction on any ventilating system, know the facts about the Univent. Consult your architect or heating engineer, or get in touch with our nearest sales office. If you prefer, write for our illustrated book, "Univent Ventilation."

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* Makers of the Univent, for the ventilation of schools, offices, churches and all buildings having an acute ventilating problem—the Herman Nelson Invisible Radiator, for residences, apartments, hotels, offices, and monumental structures—the Herman Nelson hiJet Heater, for economical distribution of heat in factories, mills, garages, warehouses, and smaller buildings.

